



City of Tacoma
Department of Public Works

SPECIFICATION NO. PW23-0203F

**Streets Initiative
Package #37 - Rebid**

Project No. PWK-00434-37

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

REQUEST FOR BIDS, SPECIAL PROVISIONS, BID PROPOSAL AND CONTRACT

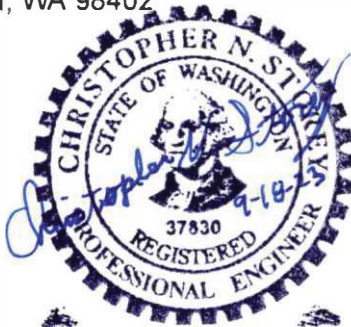
FOR

SPECIFICATION NO.
PW23-0203F

Streets Initiative Package #37 - Rebid

PROJECT NO. PWK-00434-37

Division 1
Chris Storey, P.E.
Public Works, Engineering
Room 522, TMB
Tacoma, WA 98402



Divisions 2 thru 9
Jacob Hammes, P.E.
Public Works, Engineering
Room 544, TMB
Tacoma, WA 98402



Project Manager
Jon Kulju, PMP
Public Works, Engineering
Room 522, TMB
Tacoma, WA 98402

SPECIFICATION NO. PW23-0203F REBID

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**City of Tacoma
Public Works Engineering**

**REQUEST FOR BIDS PW23-0203F
Streets Initiative Package #37 - Rebid**

Submittal Deadline: 11:00 a.m., Pacific Time, Tuesday, October 17, 2023

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

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

Submittal Delivery: Sealed submittals will be received as follows:

By Email:

sendbid@cityoftacoma.org

Maximum file size: 35 MB. Multiple emails may be sent for each submittal

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

Solicitation Documents: An electronic copy of the complete solicitation documents may be viewed and obtained 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-proposal meeting will not be held.

Project Scope: Concrete Street Panel and Pedestrian Curb Ramp Replacement

Estimate: \$3,200,000

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

Americans with Disabilities Act (ADA Information): The City of Tacoma, in accordance with Section 504 of the Rehabilitation Act (Section 504) and the Americans with Disabilities Act (ADA), commits to nondiscrimination on the basis of disability, in all of its programs and activities. Specification materials can be made available in an alternate format by emailing the contact listed below in the *Additional Information* section.

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

Additional Information: Requests for information regarding the specifications may be obtained by contacting Tina Eide, Senior Buyer by email to teide@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 and submitted with your bid response:

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. Bidder shall also list all subcontractor(s) proposed to perform the work of structural steel installation and/or rebar installation.

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 Utilization Form in accordance with the City of Tacoma Equity in Contracting Regulations Manual and 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 the EIC regulations and the TMC.

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 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.

See City of Tacoma – Equity In Contracting Program section for additional information and EIC Requirements.

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.

Example LEAP Requirements:

1. Local Employment Utilization Requirement – 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 local economically distressed areas, whether or not such person is an Apprentice.
2. Apprentice Utilization Requirement - 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: Depending on the number of requirements assigned to this project, the requirements could be satisfied concurrently. For example if the prime contractor utilizes individuals who simultaneously meet more than one assigned requirement, such as an apprentice who resides in the City of Tacoma or in a local economically distressed area, then the hours worked by that individual will be applied toward both requirements.

See City of Tacoma – Local Employment and Apprenticeship Training Program section for additional information and LEAP Requirements.

GIS Web Map App:

A Geographic Information System (GIS) Web Map Application is included in this advertisement to aid the Bidder with the locations of Work-sites listed in Appendix B. Instructions for using the GIS Web Map Application are found in Appendix E.

Link to the GIS Web Map Application:

On a computer, tablet, or phone, copy this URL into your browser:

<https://tacoma.maps.arcgis.com/apps/webappviewer/index.html?id=65d2928aae254455b12fa362b5cc9a4c>

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

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

I. STATE OF WASHINGTON

A. RESPONSIBILITY CRITERIA – STATE OF WASHINGTON

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

1. Have a current certificate of registration as a contractor in compliance with chapters 18.27 RCW, 18.106 RCW, 70.87 RCW, 19.28 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.
 - a. Bidder Responsibility. Bidders shall not be in violation of 39.04.350 RCW Bidder Responsibility Criteria - Supplemental Criteria.

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

1. The ability, capacity, experience, stability, technical qualifications and skill of the respondent to perform the contract;
2. Whether the respondent can perform the contract within the time specified, without delay or interference;
3. Integrity, reputation, character, judgment, experience, and efficiency of the respondents, including past compliance with the City's Ethics Code;
4. Quality of performance of previous contracts;
5. Previous and existing compliance with laws and ordinances relating to contracts or services;
6. Sufficiency of the respondent's financial resources;
7. Quality, availability, and adaptability of the supplies, purchased services or public works to the particular use required;
8. Ability of the respondent to provide future maintenance and service on a timely basis;
9. Payment terms and prompt pay discounts;
10. The number and scope of conditions attached to the submittal;
11. Compliance with all applicable City requirements, including but not limited to the City's Ethics Code and its 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 – NOT APPLICABLE

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. PW23-0203F
Streets Initiative Package #37 - Rebid

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. PWK-00434-37 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.

ROADWAY & STORMWATER IMPROVEMENTS:

Item No.	Sect.	Item Description	Unit	Estimated Quantity	Unit Price	Total Amount
R-1	1-10	Arterial Work Zone Temporary Traffic Control	EA	38	\$_____	\$_____
R-2	1-10	Residential Work Zone Temporary Traffic Control	EA	40	\$_____	\$_____
R-3	2-03	Roadway Excavation Incl. Haul	CY	608	\$_____	\$_____
R-4	2-03	Roadway Excavation of Contaminated Material, Incl. Haul	CY	331	\$_____	\$_____
R-5	2-03	Gravel Borrow Incl. Haul	TN	6	\$_____	\$_____
R-6	2-09	Structure Excavation Class B	CY	1128	\$_____	\$_____
R-7	2-09	Shoring or Extra Excavation Class B	SF	2062	\$_____	\$_____

Contractor's Name: _____
Specification Number: PW23-0203F
Streets Initiative Package #37 - Rebid

Item No.	Sect.	Item Description	Unit	Estimated Quantity	Unit Price	Total Amount
R-8	2-14	Remove Existing Pavement Type I, Class A2	SY	105	\$ _____	\$ _____
R-9	2-14	Remove Existing Pavement Type I, Class A4	SY	1,855	\$ _____	\$ _____
R-10	2-14	Remove Existing Pavement Type I, Class C6	SY	1,347	\$ _____	\$ _____
R-11	2-14	Remove Existing Pavement, Type I, Class C12	SY	3859	\$ _____	\$ _____
R-12	2-14	Remove Existing Pavement, Type I, Class CA	SY	250	\$ _____	\$ _____
R-13	2-15	Remove Curb	LF	2372	\$ _____	\$ _____
R-14	2-16	Remove Catch Basin	EA	2	\$ _____	\$ _____
R-15	4-04	Crushed Surfacing Top Course	TN	634	\$ _____	\$ _____
R-16	4-04	Crushed Surfacing Base Course	TN	1428	\$ _____	\$ _____
R-17	5-04	Planing Bituminous Pavement	SY	950	\$ _____	\$ _____
R-18	5-04	Cold Plant Mix for Temporary Pavement Patch	TN	34	\$ _____	\$ _____
R-19	5-04	HMA CL ½" PG 58H-22	TN	903	\$ _____	\$ _____
R-20	5-05	Cement Concrete Pavement, 7-Inch Section	SY	3859	\$ _____	\$ _____
R-21	7-05	Adjust Existing Catch Basin	EA	12	\$ _____	\$ _____
R-22	7-05	Adjust Existing Valve Chamber to Grade	EA	12	\$ _____	\$ _____
R-23	7-05	Adjust Existing Manhole	EA	6	\$ _____	\$ _____
R-24	7-05	Catch Basin Type 1	EA	11	\$ _____	\$ _____
R-25	7-05	Reconnect Existing Sewer Pipe, 8-In. Diam. to New Structure	EA	13	\$ _____	\$ _____
R-26	7-17	Ductile Iron Sewer Pipe 12 in. Diam.	LF	225	\$ _____	\$ _____
R-27	7-17	Removal and Replacement of Unsuitable Material	CY	75	\$ _____	\$ _____

Contractor's Name: _____
Specification Number: PW23-0203F
Streets Initiative Package #37 - Rebid

Item No.	Sect.	Item Description	Unit	Estimated Quantity	Unit Price	Total Amount
R-28	7-17	Removal and Replacement of Unsuitable Contaminated Material	CY	2	\$_____	\$_____
R-29	8-02	Plant Selection	EA	5	\$_____	\$_____
R-30	8-04	Cement Conc. Traffic Curb and Gutter	LF	2501	\$_____	\$_____
R-31	8-06	Cement Conc. Driveway Entrance	SY	45	\$_____	\$_____
R-32	8-13	Poured Monument	EA	1	\$_____	\$_____
R-33	8-14	Cement Conc. Sidewalk	SY	271	\$_____	\$_____
R-34	8-14	Cement Conc. Curb Ramp	EA	110	\$_____	\$_____
R-35	8-20	Remove and Replace Junction Box	EA	6	\$_____	\$_____
R-36	8-20	Conduit Pipe 1-1/4-In. Diam.	LF	512	\$_____	\$_____
R-37	8-22	Painted Wide Line	LF	25	\$_____	\$_____
R-38	8-22	Plastic Stop Line	LF	40	\$_____	\$_____
R-39	8-22	Paint Line	LF	548	\$_____	\$_____
R-40	8-30	Wrought Iron Handrail	LF	47	\$_____	\$_____

ROADWAY & STORMWATER TOTAL FOR ITEMS R-1 THRU R-40 \$_____ (1)

LUMP SUM ITEMS FOR ROADWAY & STORMWATER IMPROVEMENTS:

L-1	1-07	SPCC Plan	Lump Sum	1	Lump Sum	\$_____
L-2	1-09	Mobilization	Lump Sum	1	Lump Sum	\$_____
L-3	2-01	Certified Arborist	Lump Sum	1	Lump Sum	\$_____

Contractor's Name: _____
Specification Number: PW23-0203F
Streets Initiative Package #37 - Rebid

Item No.	Sect.	Item Description	Unit	Estimated Quantity	Unit Price	Total Amount
L-4	2-01	Clearing and Grubbing	Lump Sum	1	Lump Sum	\$ _____
L-5	2-02	Removal of Structures and Obstructions	Lump Sum	1	Lump Sum	\$ _____
L-6	2-17	Site Health and Safety Plan	Lump Sum	1	Lump Sum	\$ _____
L-7	2-17	Soil Management Plan	Lump Sum	1	Lump Sum	\$ _____
L-8	8-01	Stormwater Pollution Prevention Plan (SWPPP)	Lump Sum	1	Lump Sum	\$ _____
L-9	8-02	Site Restoration	Lump Sum	1	Lump Sum	\$ _____
L-10	8-21	Permanent Signing	Lump Sum	1	Lump Sum	\$ _____

LUMP SUM ITEMS TOTAL L-1 THRU L-10 \$ _____(2)

FORCE ACCOUNT ITEMS FOR ROADWAY & STORMWATER IMPROVEMENTS

FA-1	1-04	Minor Changes	EST	1	Estimated	\$ 50,000.00
FA-2	2-01	Certified Arborist Assessment Report Compliance	EST	1	Estimated	\$ 25,000.00
FA-3	8-01	Erosion/Water Pollution Control	EST	1	Estimated	\$ 60,000.00
FA-4	8-14	Field Design	EST	1	Estimated	\$ 20,000.00

FORCE ACCOUNT ITEMS TOTAL FA-1 THRU FA-4 \$ _____(3)

SUMMARY TOTAL BASE BID (1) + (2) + (3) \$ _____

Contractor's Name: _____
Specification Number: PW23-0203F
Streets Initiative Package #37 - Rebid

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: _____

Contractor's Name: _____

Specification Number: PW23-0203F

Streets Initiative Package #37 - Rebid

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. PW23-0203F Streets Initiative Package #37 - Rebid

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

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

Non-Collusion Declaration

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

Bidder/Proposer's Registered Name

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

Address

Printed Name and Title

City, State, Zip

(Area Code) Telephone Number / Fax Number

Authorized Signatory E-Mail Address

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

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

State Contractor's License Number
(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:

_____, 20_____

Received return of deposit in the sum of \$ _____



City of Tacoma

Certification of Compliance with Wage Payment Statutes

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date (**October 3, 2023**), 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.*

Specification No. _____

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

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 sendbid@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 sendbid@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.

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

Subcontractor Name _____
Work to be Performed _____

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 253-591-5075 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

Minority Business
Enterprise Requirement

13%

Women Business
Enterprise Requirement

9%

Small Business Enterprise
Requirement

21%

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/EIC: PWK-00434-37

Date of Record: 09/21/2023

Project Spec#:PW23-0203F (Rebid of PW23-0024F)

Project Title: Streets Initiative Package #37

*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.



City of Tacoma
Community & Economic Development
Office of Equity in Contracting
747 Market Street, Rm 900
Tacoma WA 98402
253-591-5826
Email: EICOffice@cityoftacoma.org

EQUITY IN CONTRACTING UTILIZATION FORM

This form is to document **only** the contractors, subcontractors, material suppliers or other types of firms that 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 Businesses that are "Certified" by the Office of Minority and Women's Business Enterprises (OMWBE) www.omwbe.wa.gov as a MBE, WBE, and SBE to be known as "Certified Business".
- It is the Prime contractor's responsibility to verify the certification status of the business(s) intended to be utilized prior to the submittal deadline.

Bidder's Name: _____

Address: _____ City/State/Zip: _____

Spec. No. _____ Base Bid * \$ _____ Complete business names and phone numbers are required to verify your usage of Certified Businesses

a. Business Name and Certification Number(s)	b. MBE, WBE, or SBE (Write all that apply)	c. NAICS code(s)	d. Contractor Bid Amount (100%)	e. Material Supplier Bid Amount (20%)	f. Estimated MBE Usage Dollar Amount	g. Estimated WBE Usage Dollar Amount	h. Estimated SBE Usage Dollar Amount
i. MBE Utilization %	j. WBE Utilization %	k. SBE Utilization %					

By signing and submitting this form the bidder certifies that the OMWBE Certified Business(s) 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

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 deductibles selected by the City of Tacoma. Also, please refer to Items #10-12 below.
2. Column "a" – List all **Certified Business(s)** that you will be awarding a contract to if you are the successful bidder.
3. Column "b" – Identify if the **Certified Business(s)** is being utilized as an MBE, WBE, or SBE. (Businesses may count towards multiple requirements).
4. Column "c" – List the appropriate NAICS code(s) for the scope of work, services, or materials/supplies for each **Certified Business**.
5. Column "d" – The bid amount must be indicated for **all** listed **Certified Businesses** that you plan on doing business with. This quote is the price that you and the **Certified Businesses** have negotiated prior to bid opening.
6. Column "e" – The bid amount must be indicated for **all** listed **Certified Businesses** 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 percentage 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 = MBE usage as a percentage of the Base Bid.)
11. Block "j" – The percentage 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 = WBE usage as a percentage of the Base Bid.)

12. Block “k” – The percentage 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 = SBE usage as a percentage 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 253-591-5826 or email at EICOffice@cityoftacoma.org for additional information.

CONTRACT

Resolution No.
Contract No.

This Contract is made and entered into effective as of [Month], [Day], [Year] ("Effective Date") by and between the City of Tacoma, a Municipal Corporation of the State of Washington ("City"), and [supplier name as it appears in Ariba, including dbas or trade names] ("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. [Spec Number] [Spec Title] together with all authorized addenda.
 2. Contractor's submittal [or specifically described portions thereof] dated [Enter Submittal Date] submitted in response to Specification No. [Spec Number] [Spec Title].
 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.

- II. If federal funds will be used to fund, pay or reimburse all or a portion of the services provided under the Contract, the terms and conditions set forth at this Appendix A are incorporated into and made part of this Contract and CONTRACTOR will comply with all applicable provisions of Appendix A and with all applicable federal laws, regulations, executive orders, policies, procedures, and directives in the performance of this Contract.

If CONTRACTOR's receipt of federal funds under this Contract is as a sub-recipient, a fully completed Appendix B, "Sub-recipient Information and Requirements" is incorporated into and made part of this Contract.
- III. 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 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, inclusive of Appendices A and B.
 2. List remaining Contract Documents in applicable controlling order.
- IV. The Contract terminates on xxxxx, and may be renewed for xxxxxxxx
- V. The total price to be paid by City for Contractor's full and complete performance hereunder, including during any authorized renewal terms, may not exceed:
\$[Dollar Amount], plus any applicable taxes.
- VI. 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.
- VII. The City's preferred method of payment is by ePayables (Payment Plus), followed by credit card (aka procurement card), then Electronic Funds Transfer (EFT) by Automated Clearing House (ACH), then check or other cash equivalent. CONTRACTOR may be required to have the capability of accepting the City's ePayables or credit card methods of payment. The City of Tacoma will not accept price changes or pay additional fees when ePayables (Payment Plus) or credit card is used. The City, in its sole discretion, will determine the method of payment for this Contract.

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

IX. 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.

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 this Contract, as of the Effective Date stated above, which shall be Effective Date for bonding purposes as applicable.

CITY OF TACOMA:

Signature:

Name:

Title:

CONTRACTOR:

Signature:

Name:

Title:

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

Director of Finance: _____

Deputy/City Attorney (approved as to form): _____

Approved By: _____

Approved By: _____

Approved By: _____

Approved By: _____

Approved By: _____

Approved By: _____

**APPENDIX A
FEDERAL FUNDING**

1. Termination for Breach

CITY may terminate this Contract in the event of any material breach of any of the terms and conditions of this Contract if CONTRACTOR's breach continues in effect after written notice of breach and 30 days to cure such breach and fails to cure such breach.

2. Prevailing Wages

1. If federal, state, local, or any applicable law requires CONTRACTOR to pay prevailing wages in connection with this Contract, and CONTRACTOR is so notified by the CITY, then CONTRACTOR shall pay applicable prevailing wages and otherwise comply with the Washington State Prevailing Wage Act (RCW 39.12) in the performance of this Contract.
2. If applicable, a Schedule of Prevailing Wage Rates and/or the current prevailing wage determination made by the Secretary of Labor for the locality or localities where the Contract will be performed is made of part of the Contract by this reference. If prevailing wages apply to the Contract, CONTRACTOR and its subcontractors shall:
 - i. Be bound by and perform all transactions regarding the Contract relating to prevailing wages and the usual fringe benefits in compliance with the provisions of Chapter 39.12 RCW, as amended, the Washington State Prevailing Wage Act and/or the Davis-Bacon Act (40 U.S.C. 3141- 3144, and 3146-3148) and the requirements of 29 C.F.R. pt. 5 as may be applicable, including the federal requirement to pay wages not less than once a week.
 - ii. Ensure that no worker, laborer or mechanic employed in the performance of any part of the Contract shall be paid less than the prevailing rate of wage specified on that Schedule and/or specified in a wage determination made by the Secretary of Labor (unless specifically preempted by federal law, the higher of the Washington state prevailing wage or federal Davis-Bacon rate of wage must be paid.
 - iii. Immediately upon award of the Contract, contact the Department of Labor and Industries, Prevailing Wages section, Olympia, Washington and/or the federal Department of Labor, to obtain full information, forms and procedures relating to these matters. Per such procedures, a Statement of Intent to Pay Prevailing Wages and/or other or additional documentation required by applicable federal law, must be submitted by CONTRACTOR and its subcontractors to the CITY, in the manner requested by the CITY, prior to any payment by the CITY hereunder, and an Affidavit of Wages Paid and/or other or additional documentation required by federal law must be received or verified by the CITY prior to final Contract payment.

3. COPELAND ANTI-KICKBACK ACT

For Contracts subject to Davis Bacon Act the following clauses will be incorporated into the Contract:

- A. CONTRACTOR shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this Contract.
- B. CONTRACTOR or subcontractor shall insert in any subcontracts the clause above and such other clauses federal agencies may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts.

The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these Contract clauses.

- C. Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.

4. EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this Contract, CONTRACTOR will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. If the CONTRACTOR does over \$10,000 in business a year that is funded, paid or reimbursed with federal funds, CONTRACTOR will take specific and affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

- A. Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- B. CONTRACTOR will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- C. CONTRACTOR will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.
- D. CONTRACTOR will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- E. CONTRACTOR will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- F. In the event of CONTRACTOR's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this Contract may be canceled, terminated, or suspended in whole or in part and the CONTRACTOR may be declared ineligible for further federally funded contracts in accordance with procedures

authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

- G. CONTRACTOR will include the portion of the sentence immediately preceding paragraph (A) and the provisions of paragraphs (A) through (G) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. CONTRACTOR will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

5. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

- A. Overtime requirements. Neither CONTRACTOR or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- B. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (3)(A) of this section the CONTRACTOR and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such CONTRACTOR and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (3)(A) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (3)(A) of this section.
- C. Withholding for unpaid wages and liquidated damages. The CITY shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the CONTRACTOR or subcontractor under any such contract or any other Federal

contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such CONTRACTOR or sub-contractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (3)(B) of this section.

- D. Subcontracts. The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (3)(A) through (D) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime CONTRACTOR shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (3)(A) through (D) of this section.

6. CLEAN AIR ACT

- A. CONTRACTOR agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- B. CONTRACTOR agrees to report each violation to the CITY and understands and agrees that the CITY will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal funds.

7. FEDERAL WATER POLLUTION CONTROL ACT

- A. CONTRACTOR agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
- B. CONTRACTOR agrees to report each violation to the CITY and understands and agrees that the CITY will, in turn, report each violation as required to assure notification to the appropriate federal agency.
- C. CONTRACTOR agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal funding.

8. DEBARMENT AND SUSPENSION

- A. This Contract is a Covered Transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the CONTRACTOR is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
- B. CONTRACTOR must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier Covered Transaction it enters into.

- C. This certification is a material representation of fact relied upon by the CITY. If it is later determined that the CONTRACTOR did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to CITY, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- D. CONTRACTOR agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C throughout the period of this Contract and to include a provision requiring such compliance in its lower tier covered transactions.

9. BYRD ANTI-LOBBYING AMENDMENT

- A. Contractors who apply or bid for an award of \$100,000 or more shall file the required certification with CITY. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the CITY.
- B. If applicable, CONTRACTOR must sign and submit to the CITY the certification required by Appendix A to 44 CFR Part 18 contained at Appendix A-1 to this Contract.

10. PROCUREMENT OF RECOVERED MATERIALS

- A. In the performance of this Contract, CONTRACTOR shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired:
 - i. Competitively within a timeframe providing for compliance with the contract performance schedule;
 - ii. Meeting contract performance requirements; or
 - iii. At a reasonable price.
- B. Information about this requirement, along with the list of EPA- designated items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.
- C. CONTRACTOR also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

APPENDIX A-1

APPENDIX A to 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap.38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official

Name and Title of Contractor's Authorized Official

Date

APPENDIX B—Sub-recipient information and requirements

Pursuant to 2 CFR 200.332(a)(1) Federal Award Identification

(i) Agency Name (must match the name associated with its unique entity identifier)		(ii) Unique Entity Identifier <i>(i.e., DUNS)</i>	City of Tacoma Number for This Agreement
(iii) Federal Award Identification Number (FAIN)	(iv) Federal Award Date	(v) Federal Period of Performance Start and End Date	(vi) Federal Budget Period Start and End Date
(vii) Amount of Federal Funds <i>Obligated</i> to the agency <i>by this action</i>: \$	(viii) Total Amount of Federal Funds <i>Obligated</i> to the agency	(ix) Total Amount of the Federal Award <i>Committed</i> to the agency \$	
(x) Federal Award Project Description: CORONAVIRUS STATE AND LOCAL FISCAL RECOVERY FUNDS– City of Tacoma			
(xi) Federal Awarding Agency: DEPARTMENT OF THE TREASURY	Pass-Through Entity: City of Tacoma	Awarding Official Name and Contact Information:	
(xii) Assistance Listing Number and Name (the pass-through entity must identify the dollar amount made available under each Federal award and the Assistance Listing number at time of disbursement)			(xiii) Identification of Whether the Award is R&D
(xiv) Indirect Cost Rate for the Federal Award	Award Payment Method (lump sum payment or reimbursement) REIMBURSEMENT		



PAYMENT BOND TO THE CITY OF TACOMA

Resolution No.
Bond 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

Specification No. _____

Specification 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 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 waives 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.

Resolution No.
Bond No.
Specification No.
Contract No.

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: _____

Agent's Name: _____

Agent's Address: _____

SAMPLE



PERFORMANCE BOND TO THE CITY OF TACOMA

Resolution No.
Bond 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

Specification No. _____

Specification 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 judgement, 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 _____
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 II

SPECIAL PROVISIONS

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1 **INTRODUCTION**
2 **(April 1, 2018 Tacoma GSP)**
3

4 The following special provisions shall be used in conjunction with the "2023 Standard
5 Specifications for Road, Bridge and Municipal Construction" and "Standard Plans for
6 Road, Bridge, and Municipal Construction" as prepared by the Washington State
7 Department of Transportation (WSDOT). State Standard Specifications are available
8 through WSDOT, by calling (360) 705-7430, emailing engrpubs@wsdot.wa.gov, or may
9 be downloaded, free of charge, from this location on the WSDOT home page:
10 <http://www.wsdot.wa.gov/Publications/Manuals/M41-10.htm>
11

12 These Special Provisions are made up of both General Special Provisions (GSPs) from
13 various sources, which may have project-specific fill-ins; and project-specific Special
14 Provisions. Each Provision either supplements, modifies, or replaces the comparable
15 Standard Specification, or is a new Provision. The deletion, amendment, alteration, or
16 addition to any subsection or portion of the Standard Specifications is meant to pertain
17 only to that particular portion of the section, and in no way should it be interpreted that
18 the balance of the section does not apply.
19

20 The GSPs are labeled under the headers of each GSP, with the date of the GSP and its
21 source, as follows:
22

23 *(May 18, 2007 APWA GSP)*
24 *(August 7, 2006 WSDOT GSP)*
25 *(April 2, 2007 Tacoma GSP)*
26

27 The project specific Special Provisions are labeled under the headers of each Special
28 Provision as follows:
29

30 **(*****)**

31 A pre-bid conference will not be held. To answer questions regarding the Equity In
32 Contracting (EIC) Program and Local Employment and Apprenticeship Training Program
33 (LEAP) requirements included in the contract, prospective bidders are urged to contact
34 EIC Office with questions.
35

36 **DESCRIPTION OF WORK**

37 **(*****)**

38 This Contract shall generally consist of cement concrete work including:

- 39 • removal of damaged concrete panels at Work-sites, repairing subgrade as field
40 determined, and replacing existing concrete road panels with new panels
41 matching the existing depths (generally 6-8 inches),
- 42 • cement concrete bulbouts at the intersection of S 70th & S Oakes,
- 43 • cement concrete curb ramps at the intersection of S 46th & S Yakima
- 44 • cement concrete curb ramps at Work-sites noted in Appendix B
- 45 • offsite improvements at the Go Philly Work-site at S 16th & S Tacoma Ave, and
- 46 • two bus pads at the intersection of S 74 & S Madison St. See Appendix F.
47

48 All in accordance with the Plans, Specifications and Appendices to the Special
49 Provisions.
50

51 **END OF SECTION**

1 **1-01 DEFINITIONS AND TERMS**

2
3 **1-01.3 Definitions**

4 **(January 4, 2016 APWA GSP)**

5
6 *Delete the heading Completion Dates and the three paragraphs that follow it, and*
7 *replace them with the following:*

8
9 **Dates**

10 ***Bid Opening Date***

11 The date on which the Contracting Agency publicly opens and reads the Bids.

12 ***Award Date***

13 The date of the formal decision of the Contracting Agency to accept the lowest
14 responsible and responsive Bidder for the Work.

15 ***Contract Execution Date***

16 The date the Contracting Agency officially binds the Agency to the Contract.

17 ***Notice to Proceed Date***

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

19 ***Substantial Completion Date***

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

25 ***Physical Completion Date***

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

29 ***Completion Date***

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

34 ***Final Acceptance Date***

35 The date on which the Contracting Agency accepts the Work as complete.

36
37 *Supplement this Section with the following:*

38
39 All references in the Standard Specifications, Amendments, or WSDOT General Special
40 Provisions, to the terms "Department of Transportation", "Washington State
41 Transportation Commission", "Commission", "Secretary of Transportation", "Secretary",
42 "Headquarters", and "State Treasurer" shall be revised to read "Contracting Agency".

43
44 All references to the terms "State" or "state" shall be revised to read "Contracting
45 Agency" unless the reference is to an administrative agency of the State of Washington,
46 a State statute or regulation, or the context reasonably indicates otherwise.

1 All references to "State Materials Laboratory" shall be revised to read "Contracting
2 Agency designated location".

3
4 All references to "final contract voucher certification" shall be interpreted to mean the
5 Contracting Agency form(s) by which final payment is authorized, and final completion
6 and acceptance granted.

7
8 **Additive**

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

12
13 **Alternate**

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

17
18 **Business Day**

19 A business day is any day from Monday through Friday except holidays as listed in
20 Section 1-08.5.

21
22 **Contract Bond**

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

26
27 **Contract Documents**

28 See definition for "Contract".

29
30 **Contract Time**

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

33
34 **Notice of Award**

35 The written notice from the Contracting Agency to the successful Bidder signifying the
36 Contracting Agency's acceptance of the Bid Proposal.

37
38 **Notice to Proceed**

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

42
43 **Traffic**

44 Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs,
45 and equestrian traffic.

46
47 *This section is supplemented with the following:*
48 **(April 15, 2020 Tacoma GSP)**

49
50 All references to the acronym UDBE" shall be revised to read "DBE/EIC".
51

1 All references in the Standard Specifications to the term "Proposal Bond" shall be
2 revised to read "Bid Bond."

3
4 **Base Bid**

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

8
9 **Calendar Day**

10 The time period of 24 hours measured from midnight to the next midnight, including
11 weekends and holidays.

12
13 **Change Order**

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

18
19 **Day**

20 Unless otherwise specified, a calendar day.

21
22 **Deductive**

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

26
27 **Grand Total Price**

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

30
31 **Standard Specifications**

32 Divisions One through Nine of the specified edition of the WSDOT "Standard
33 Specifications for Road, Bridge, and Municipal Construction."

34
35 *This section is supplemented with the following:*
36 *(*****)*

37
38 **Work-site**

39 Each location listed in Appendix B by Water billing address, physical address or street
40 intersection corner. See Section 1-08.5 for limits/conditions for number of active Work-
41 sites allowed during construction.

42
43
44
45 **END OF SECTION**
46
47

1 **1-02 BID PROCEDURES AND CONDITIONS**

2
3 **1-02.1 Prequalification of Bidders**

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

5
6 **1-02.1 Qualifications of Bidder**
7 **(January 24, 2011 APWA GSP)**

8
9 Before award of a public works contract, a bidder must meet at least the minimum
10 qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified
11 to be awarded a public works project.

12
13 **1-02.2 Plans and Specifications**
14 **(*****)**

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

16
17 Information as to where Bid Documents can be obtained or reviewed can be found in the
18 Call for Bids (Advertisement for Bids) for the work.

19
20 To reduce paper waste and promote sustainability, the Contracting Agency will only
21 provide electronic copies of the project plans and specifications. If printed copies of the
22 plans and specifications are necessary, the Contractor may obtain them from the source
23 stated in the Call for Bids, at the Contractor's own expense. Prior to Notice to Proceed,
24 the Contracting Agency may issue revised plans and specifications incorporating
25 addenda published during the bid period. The Contractor should inquire with the
26 Contracting Agency, before ordering plans and specifications, to determine if revisions
27 are forthcoming.

28
29 **1-02.4(1) General**
30 **(August 15, 2016 APWA GSP Option B)**

31
32 *The first sentence of the last paragraph is revised to read:*

33
34 Any prospective Bidder desiring an explanation or interpretation of the Bid Documents,
35 shall request the explanation or interpretation in writing by close of business 6 business
36 days preceding the bid opening to allow a written reply to reach all prospective Bidders
37 before the submission of their Bids.

38
39 **1-02.5 Proposal Forms**
40 **(July 31, 2017 APWA GSP)**

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

42
43 The Proposal Form will identify the project and its location and describe the work. It will
44 also list estimated quantities, units of measurement, the items of work, and the materials
45 to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal
46 form that call for, but are not limited to, unit prices; extensions; summations; the total bid
47 amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment
48 of addenda; the bidder's name, address, telephone number, and signature; the bidder's
49 UDBE/DBE/M/WBE commitment, if applicable; a State of Washington Contractor's
50 Registration Number; and a Business License Number, if applicable. Bids shall be

1 completed by typing or shall be printed in ink by hand, preferably in black ink. The
2 required certifications are included as part of the Proposal Form.

3
4 The Contracting Agency reserves the right to arrange the proposal forms with alternates
5 and additives, if such be to the advantage of the Contracting Agency. The bidder shall
6 bid on all alternates and additives set forth in the Proposal Form unless otherwise
7 specified.

8
9 **1-02.6 Preparation of Proposal**
10 **(July 11, 2018 APWA GSP)**

11
12 *Supplement the second paragraph with the following:*

13 4. If a minimum bid amount has been established for any item, the unit or lump
14 sum price must equal or exceed the minimum amount stated.

15 5. Any correction to a bid made by interlineation, alteration, or erasure, shall be
16 initialed by the signer of the bid.

17
18 *Delete the last two paragraphs, and replace them with the following:*

19
20 If no Subcontractor is listed, the Bidder acknowledges that it does not intend to use any
21 Subcontractor to perform those items of work.

22
23 The Bidder shall submit with their Bid a completed Contractor Certification Wage Law
24 Compliance form, provided by the Contracting Agency. Failure to return this certification
25 as part of the Bid Proposal package will make this Bid Nonresponsive and ineligible for
26 Award. A Contractor Certification of Wage Law Compliance form is included in the
27 Proposal Forms.

28
29 The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

30
31 A bid by a corporation shall be executed in the corporate name, by the president or a
32 vice president (or other corporate officer accompanied by evidence of authority to sign).

33
34 A bid by a partnership shall be executed in the partnership name, and signed by a
35 partner. A copy of the partnership agreement shall be submitted with the Bid Form if any
36 UDBE requirements are to be satisfied through such an agreement.

37
38 A bid by a joint venture shall be executed in the joint venture name and signed by a
39 member of the joint venture. A copy of the joint venture agreement shall be submitted
40 with the Bid Form if any UDBE requirements are to be satisfied through such an
41 agreement.

42
43 *The fourth paragraph is revised to read:*
44 **(October 18, 2013 Tacoma GSP)**

45
46 The bidder shall submit the following completed forms:
47 City of Tacoma – Equity in Contracting Utilization Form

1 *Add the following new section:*

2
3 **1-02.6(1) Recycled Materials Proposal**
4 **(January 4, 2016 APWA GSP)**

5
6 The Bidder shall submit with the Bid, its proposal for incorporating recycled materials
7 into the project, using the form provided in the Contract Provisions.

8
9 **1-02.7 Bid Deposit**
10 **(*****)**

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

12
13 A deposit of at least 5 percent of the total Bid shall accompany each Bid. This deposit
14 may be cash, certified check, cashier's check, or a proposal bond (Surety bond). Any
15 proposal bond shall be on the Contracting Agency's form and shall be signed by the
16 Bidder and the Surety. A proposal bond shall not be conditioned in any way to modify
17 the minimum 5 percent required. The Surety shall: (1) be registered with the Washington
18 State Insurance Commissioner, and (2) appear on the current Authorized Insurance List
19 in the State of Washington published by the Office of the Insurance Commissioner.

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

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

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

28 City of Tacoma Procurement & Payables Division
29 Tacoma Public Utilities
30 3628 S 35th St
31 Tacoma, WA 98409

32
33 If so stated in the Contract Provisions, cash will not be accepted for a bid deposit.

34 **1-02.9 Delivery of Proposal**
35 **(March 1, 2021 Tacoma GSP)**

36
37 *Delete this section and replace it with the following:*

38
39 Each Proposal shall be submitted in a sealed envelope or shall be submitted
40 electronically via email to sendbid@cityoftacoma.org, with the Project Name and
41 Project Number as stated in the Call for Bids clearly marked on the outside of the
42 envelope, or as otherwise required in the Bid Documents, to ensure proper handling
43 and delivery.
44

To be considered responsive on a FHWA-funded project, the Bidder may be required to submit the following items, as required by Section 1-02.6:

- DBE Written Confirmation Document from each DBE firm listed on the Bidder's completed DBE Utilization Certification (WSDOT 272-056);
- Good Faith Effort (GFE) Documentation
- DBE Bid Item Breakdown (WSDOT 272-054)
- DBE Trucking Credit Form (WSDOT 272-058)

These documents, if applicable, shall be received either with the Bid Proposal or as a Supplement to the Bid. The documents shall be received **no later than 48 hours** (not including Saturdays, Sundays and Holidays) after the time for delivery of the Bid Proposal.

If submitted after the Bid Proposal is due, the document(s) shall be submitted as follows:

1. In a sealed envelope labeled the same as for the Proposal, with "Supplemental Information" added, or
2. By e-mail to sendbid@cityoftacoma.org with "Supplemental Information" noted in the subject line.

All other information required to be submitted with the Bid Proposal must be submitted with the Bid Proposal itself, at the time stated in the Call for Bids.

Proposals that are received as required will be publicly opened and read as specified in Section 1-02.12. The Contracting Agency will not open or consider any Bid Proposal that is received after the time specified in the Call for Bids for receipt of Bid Proposals, or received in a location other than that specified in the Call for Bids. The Contracting Agency will not open or consider any "Supplemental Information" (DBE confirmations or GFE documentation) that is received after the time specified above, or received in a location other than that specified in the Call for Bids.

If an emergency or unanticipated event interrupts normal work processes of the Contracting Agency so that Proposals cannot be received at the office designated for receipt of bids as specified in Section 1-02.12 the time specified for receipt of the Proposal will be deemed to be extended to the same time of day specified in the solicitation on the Tuesday on which the normal work processes of the Contracting Agency resume.

1-02.10 Withdrawing, Revising, or Supplementing Proposal (April 12, 2023, Tacoma GSP)

Delete this section and replace it with the following:

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

1. The Bidder submits a written request signed by an authorized person and either emailed to sendbid@cityoftacoma.org or delivered in person to

City of Tacoma Procurement & Payables Division
Tacoma Public Utilities
3628 S 35th Street
Tacoma, WA 98409, or mailed to
City of Tacoma Procurement & Payables Division
Tacoma Public Utilities
PO Box 11007
Tacoma, WA 98411-0007, and

2. The Contracting Agency receives the request before the time set for receipt of Proposals, and
3. 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.

1-02.12 Public Opening of Proposals

(*****)

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://us06web.zoom.us/j/88402680573?pwd=eThSaXZxNER0TWRhUGx6U0F2cURMZz09>

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

1-02.13 Irregular Proposals

(October 18, 2013 Tacoma 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 the EIC forms as required in Section 1-02.6;
 - i. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
 - j. 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 reject 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 EIC requirements as described in Section 1-02.6.

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

8
9 The basis for evaluation of Bidder compliance with these supplemental criteria shall be
10 any documents or facts obtained by Contracting Agency (whether from the Bidder or
11 third parties) which any reasonable owner would rely on for determining such
12 compliance, including but not limited to: (i) financial, historical, or operational data from
13 the Bidder; (ii) information obtained directly by the Contracting Agency from owners for
14 whom the Bidder has worked, or other public agencies or private enterprises; and (iii)
15 any additional information obtained by the Contracting Agency which is believed to be
16 relevant to the matter.

17
18 If the Contracting Agency determines the Bidder does not meet the bidder responsibility
19 criteria above and is therefore not a responsible Bidder, the Contracting Agency shall
20 notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees
21 with this determination, it may appeal the determination within 24 hours of receipt of the
22 Contracting Agency's determination by presenting its appeal to the Contracting Agency.
23 The Contracting Agency will consider the appeal before issuing its final determination. If
24 the final determination affirms that the Bidder is not responsible, the Contracting Agency
25 will not execute a contract with any other Bidder until at least two business days after the
26 Bidder determined to be not responsible has received the final determination.

27 28 **1-02.15 Pre Award Information** 29 **(August 14, 2013 APWA GSP)**

30
31 *Revise this section to read:*

32
33 Before awarding any contract, the Contracting Agency may require one or more of these
34 items or actions of the apparent lowest responsible bidder:

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

46
47
48 **END OF SECTION**
49

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.

1 Within 10 calendar days after the award date, the successful bidder shall return the
2 signed Contracting Agency-prepared contract, an insurance certification as required by
3 Section 1-07.18, and a satisfactory bond as required by law and Section 1-03.4. Before
4 execution of the contract by the Contracting Agency, the successful bidder shall provide
5 any pre-award information the Contracting Agency may require under Section 1-02.15.
6

7 Until the Contracting Agency executes a contract, no proposal shall bind the Contracting
8 Agency nor shall any work begin within the project limits or within Contracting Agency-
9 furnished sites. The Contractor shall bear all risks for any work begun outside such
10 areas and for any materials ordered before the contract is executed by the Contracting
11 Agency.
12

13 If the bidder experiences circumstances beyond their control that prevents return of the
14 contract documents within the calendar days after the award date stated above, the
15 Contracting Agency may grant up to a maximum of 10 additional calendar days for
16 return of the documents, provided the Contracting Agency deems the circumstances
17 warrant it.
18

19 **1-03.4 Contract Bond**
20 **(July 23, 2015 APWA GSP)**

21 *Delete the first paragraph and replace it with the following:*
22

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

- 27 1. Be on Contracting Agency-furnished form(s);
- 28 2. Be signed by an approved surety (or sureties) that:
 - 29 a. Is registered with the Washington State Insurance Commissioner, and
 - 30 b. Appears on the current Authorized Insurance List in the State of Washington
31 published by the Office of the Insurance Commissioner,
- 32 3. Guarantee that the Contractor will perform and comply with all obligations, duties,
33 and conditions under the Contract, including but not limited to the duty and
34 obligation to indemnify, defend, and protect the Contracting Agency against all
35 losses and claims related directly or indirectly from any failure:
 - 36 a. Of the Contractor (or any of the employees, subcontractors, or lower tier
37 subcontractors of the Contractor) to faithfully perform and comply with all
38 contract obligations, conditions, and duties, or
 - 39 b. Of the Contractor (or the subcontractors or lower tier subcontractors of the
40 Contractor) to pay all laborers, mechanics, subcontractors, lower tier
41 subcontractors, material person, or any other person who provides supplies
42 or provisions for carrying out the work;
- 43 4. Be conditioned upon the payment of taxes, increases, and penalties incurred on
44 the project under titles 50, 51, and 82 RCW; and
- 45 5. Be accompanied by a power of attorney for the Surety's officer empowered to
46 sign the bond; and
- 47 6. Be signed by an officer of the Contractor empowered to sign official statements
48 (sole proprietor or partner). If the Contractor is a corporation, the bond(s) must be
49 signed by the president or vice president, unless accompanied by written proof of

1 the authority of the individual signing the bond(s) to bind the corporation (i.e.,
2 corporate resolution, power of attorney, or a letter to such effect signed by the
3 president or vice president).
4

5
6 **1-03.5 Failure to Execute Contract**
7 **(April 15, 2020 Tacoma GSP)**

8 *The first sentence is revised to read:*
9

10 Failure to return the insurance certification and bond with the signed contract as required
11 in Section 1-03.3, or failure to provide Equity In Contracting (EIC) information if required
12 in the contract, or failure or refusal to sign the Contract, or failure to register as a
13 contractor in the state of Washington shall result in forfeiture of the bid bond or deposit
14 of this Bidder
15

16

17

END OF SECTION

18

1 **1-04 SCOPE OF THE WORK**

2
3 **1-04.2 Coordination of Contract Documents, Plans, Special Provisions,**
4 **Specifications, and Addenda**
5 **(March 13, 2012 APWA GSP)**

6 *Revise the second paragraph to read:*

7
8 Any inconsistency in the parts of the contract shall be resolved by following this order of
9 precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

- 10 1. Addenda,
- 11 2. Proposal Form,
- 12 3. Special Provisions,
- 13 4. Contract Plans,
- 14 5. Amendments to the Standard Specifications,
- 15 6. Standard Specifications,
- 16 7. Contracting Agency's Standard Plans or Details (if any), and
- 17 8. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

18
19 **1-04.6 Variation in Estimated Quantities**
20 **(July 23, 2015 APWA GSP, Option B)**

21
22 *Revise the first paragraph to read:*

23
24 Payment to the Contractor will be made only for the actual quantities of Work performed
25 and accepted in conformance with the Contract. When the accepted quantity of Work
26 performed under a unit item varies from the original Proposal quantity, payment will be at
27 the unit Contract price for all Work unless the total accepted quantity of a Contract item,
28 adjusted to exclude added or deleted amounts included in change orders accepted by
29 both parties, increases or decreased by more than 25 percent from the original Proposal
30 quantity, and if the total extended bid price for that item at the time of award is equal to
31 or greater than 10 percent of the total contract price at time of award. In that case
32 payment for contract work may be adjusted as described herein:
33
34
35
36

37 **END OF SECTION**
38
39

1 **1-05 CONTROL OF WORK**

2
3 **1-05.3 Working Drawings**
4 **(January 13, 2011 Tacoma GSP)**

5 *This section is deleted in its entirety and replaced with the following:*

6
7 **1-05.3 Submittals**

8
9 The Contractor shall not install materials or equipment, which require submittals, until
10 reviewed by the Contracting Agency.

11
12 The Contractor shall submit four (4) copies to the Engineer of all submittals required by
13 the Contract Documents, unless otherwise required in these Special Provisions. This
14 includes, but is not limited to:

- 15 • Shop Drawings/Plans
- 16 • Product Data
- 17 • Samples
- 18 • Reports
- 19 • Material Submittals (Ref. 1-06)
- 20 • Progress Schedules (Ref. 1-08.3)
- 21 • Guarantees/Warranties (Ref. 1-05.10)

22
23 The Engineer will return one (1) copy to the Contractor.

24
25 **1-05.3(1) Submittal Schedule**

26
27 In conformance with section 1-08.3, the progress schedule shall be submitted and
28 reviewed prior to commencing any work.

29
30 No claim will be allowed for damages or extension of time resulting from rejection of a
31 submittal or the requirement of resubmittals as outlined by this section.

32
33 The Engineer's review will be completed as quickly as possible, but may require up to
34 ten (10) working days from the date the submittals or resubmittals are received until they
35 are sent to the Contractor. If more than ten (10) working days are required for the
36 Engineer's review of any individual submittal or resubmittal, an extension of time will be
37 considered in accordance with Section 1-08.8.

38
39 **1-05.3(2) Submittal Procedures**

40
41 Contractor submittals shall be in accordance with the following:

42
43 The Contractor shall thoroughly review each submittal for dimensions, quantities, and
44 details of the material or item shown. The Contractor shall review each submittal and
45 note any errors, omissions, or deviations with the Contract Documents. The Contractor
46 shall accept full responsibility for the completeness of each submittal.

47
48 Each submittal shall have a unique number assigned to it, and the transmittals shall be
49 sequentially numbered. The numbering of resubmittals shall meet the requirements of

1 Section 1-05.3(4). On each page, indicate the page number, and total number of pages
2 in each submittal.

3
4 Each submittal shall indicate the intended use of the item in the work. When catalog
5 pages are submitted, applicable items shall be clearly identified. The current revision,
6 issue number, and data shall be indicated on all drawings and other descriptive data.

7
8 Each submittal should be transmitted with the "Submittal Transmittal Form" found at the
9 end of this section. Upon request, an electronic copy of the Submittal Transmittal Form
10 will be made available to the Contractor.

11
12 In lieu of utilizing the Submittal Transmittal Form, the Contractor may display the
13 following information on each submittal, in a clear space on the front of the submittal:

- 14
- 15 • Project Name: Streets Initiative Package #37 - Rebid
- 16 • Project Specification Number: PW23-0203F
- 17 • Project No. PWK-00434-37
- 18 • Submittal Date
- 19 • Description of Submittal
- 20 • Sequential, unique submittal number.
- 21 • Related Specification Section and/or plan sheet
- 22 • The following statement: "This document has been detail-checked for accuracy of
23 content and for compliance with the Contract documents. The information
24 contained herein has been fully coordinated with all involved Subcontractors."
- 25 • Printed or typed name and signature of Contractor.
- 26

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

31
32 Samples submitted shall be of sufficient size and quantity to clearly illustrate functional
33 characteristics of product or material and full range of colors available. Field samples
34 and mock-ups, where required, shall be erected at the project site where directed by the
35 Engineer.

36
37 The Contractor shall notify the Engineer, in writing at time of submission, of deviations in
38 submittals from requirements of the Contract documents.

39
40 The City shall not be responsible for delays in reviewing submittals not submitted in
41 accordance with these specifications.

42 43 **1-05.3(3) Engineer's Review of Submittals**

44
45 The Engineer's review of drawings and data submitted by the Contractor will cover only
46 general conformity with the Contract drawings and specifications. The Engineer's review
47 of submittals shall not relieve the Contractor from responsibility for errors, omissions,
48 deviations, or responsibility for compliance with the Contract documents.

49 Review of a separate item does not constitute review of an assembly in which the item
50 functions.

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

4 5 **1-05.3(4) Resubmittals**

6
7 When a submittal is marked "AMEND AND RESUBMIT" or "REJECTED, SEE
8 REMARKS," the Contractor shall make the corrections as noted and instructed by the
9 Engineer and resubmit four (4) copies. The Contractor shall not install material or
10 equipment that has received a review status of "AMEND AND RESUBMIT" or
11 REJECTED, SEE REMARKS".

12
13 When corrected copies are resubmitted, the Contractor shall in writing direct specific
14 attention to all revisions and shall list separately any revision made other than those
15 called for by the Engineer on previous submittals. Resubmittals shall bear the number of
16 the original submittal followed by a letter (A, B, etc.) to indicate the sequence of the
17 resubmittal.

18
19 The Contractor shall revise returned submittals as required and resubmit until final
20 review is obtained.

21
22 The Contractor shall verify that all exceptions previously noted by the Engineer have
23 been accounted for.

24 25 **1-05.3(5) Submittal Requirements by Section**

26
27 The following is a summary of submittal requirements. This summary is not inclusive of
28 all submittal requirements. The Contractor shall review each individual section in the
29 applicable provisions or specifications, as noted below, for specific requirements.
30

Section	Description
1-06.1	Proposed Material Sources
1-06.1(2)	Request for Approval of Material
1-06.3	Manufacturer's Certificate of Compliance
1-07.15	Temporary Water Pollution/Erosion Control Plan
1-07.15(1)	Spill Prevention, Control and Countermeasures (SPCC) Plan
1-07.16(1)	Property Owner Notification
1-08.3(2)	Progress Schedule
1-09.6	Equipment Rental Rates and Equipment Watch Sheets
1-09.9	Schedule Of Values
1-10.2	Traffic Control Plan
4-04	Crushed Surfacing Top Course
4-04	Crushed Surfacing Base Course
5-04	Asphalt Mix Design Certification
5-05	Concrete Mix Design
7-05	Manholes
7-05	Castings
7-05	Kor-N-Seal Connector
7-08.3(1)C	Pipe Bedding
7-08.3(3)	Trench Backfill
7-17	Pipe materials
7-18	Inserta-Tees
8-01.3(1)A	Stormwater Pollution Prevention Plan (SWPPP)

1-05.4 Conformity With and Deviations from Plans and Stakes

Delete the fourth through seventh paragraph of this section and add the following new subsection:

(*****)

Three sites are designated for Agency Provided Construction Staking.

Go Philly offsite improvements Work-site (See Plan Sheets)

S 46th & Yakima Work-sites (See Plan Sheets)

S 70th & Oakes Work-sites (See Plan Sheets)

Other survey locations for concrete panel, pedestrian curb ramp, or bus pads will be requested by the Engineer if required.

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 **1-05.4(1)E Monuments**

2 The Contractor shall work to preserve the existing monumentation as provided in RCW
3 58.09.130 and WAC 332-120. The Contractor shall notify the Engineer immediately if it
4 becomes apparent that a survey marker will be disturbed due to construction. The
5 Contractor shall allow ample time for the Engineer to acquire adequate information so
6 that the monument may be replaced in its original position after construction.

7
8 **1-05.7 Removal of Defective and Unauthorized Work**
9 **(October 1, 2005 APWA GSP)**

10 *Supplement this section with the following:*

11
12 If the Contractor fails to remedy defective or unauthorized work within the time specified
13 in a written notice from the Engineer, or fails to perform any part of the work required by
14 the Contract Documents, the Engineer may correct and remedy such work as may be
15 identified in the written notice, with Contracting Agency forces or by such other means
16 as the Contracting Agency may deem necessary.

17
18 If the Contractor fails to comply with a written order to remedy what the Engineer
19 determines to be an emergency situation, the Engineer may have the defective and
20 unauthorized work corrected immediately, have the rejected work removed and
21 replaced, or have work the Contractor refuses to perform completed by using
22 Contracting Agency or other forces. An emergency situation is any situation when, in the
23 opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause
24 serious risk of loss or damage to the public.

25
26 Direct or indirect costs incurred by the Contracting Agency attributable to correcting and
27 remedying defective or unauthorized work, or work the Contractor failed or refused to
28 perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from
29 monies due, or to become due, the Contractor. Such direct and indirect costs shall
30 include in particular, but without limitation, compensation for additional professional
31 services required, and costs for repair and replacement of work of others destroyed or
32 damaged by correction, removal, or replacement of the Contractor's unauthorized work.

33
34 No adjustment in Contract time or compensation will be allowed because of the delay in
35 the performance of the work attributable to the exercise of the Contracting Agency's
36 rights provided by this Section.

37
38 The rights exercised under the provisions of this section shall not diminish the
39 Contracting Agency's right to pursue any other avenue for additional remedy or
40 damages with respect to the Contractor's failure to perform the work as required.

41
42 **1-05.11 Final Inspection**

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

44
45 **1-05.11 Final Inspections and Operational Testing**
46 **(October 1, 2005 APWA GSP)**

47
48 **1-05.11(1) Substantial Completion Date**

49
50 When the Contractor considers the work to be substantially complete, the Contractor
51 shall so notify the Engineer and request the Engineer establish the Substantial

1 Completion Date. The Contractor's request shall list the specific items of work that
2 remain to be completed in order to reach physical completion. The Engineer will
3 schedule an inspection of the work with the Contractor to determine the status of
4 completion. The Engineer may also establish the Substantial Completion Date
5 unilaterally.
6

7 If, after this inspection, the Engineer concurs with the Contractor that the work is
8 substantially complete and ready for its intended use, the Engineer, by written notice to
9 the Contractor, will set the Substantial Completion Date. If, after this inspection the
10 Engineer does not consider the work substantially complete and ready for its intended
11 use, the Engineer will, by written notice, so notify the Contractor giving the reasons
12 therefore.
13

14 Upon receipt of written notice concurring in or denying substantial completion, whichever
15 is applicable, the Contractor shall pursue vigorously, diligently and without unauthorized
16 interruption, the work necessary to reach Substantial and Physical Completion. The
17 Contractor shall provide the Engineer with a revised schedule indicating when the
18 Contractor expects to reach substantial and physical completion of the work.
19

20 The above process shall be repeated until the Engineer establishes the Substantial
21 Completion Date and the Contractor considers the work physically complete and ready
22 for final inspection.
23

24 **1-05.11(2) Final Inspection and Physical Completion Date** 25

26 When the Contractor considers the work physically complete and ready for final
27 inspection, the Contractor by written notice, shall request the Engineer to schedule a
28 final inspection. The Engineer will set a date for final inspection. The Engineer and the
29 Contractor will then make a final inspection and the Engineer will notify the Contractor in
30 writing of all particulars in which the final inspection reveals the work incomplete or
31 unacceptable. The Contractor shall immediately take such corrective measures as are
32 necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously,
33 diligently, and without interruption until physical completion of the listed deficiencies.
34 This process will continue until the Engineer is satisfied the listed deficiencies have been
35 corrected.
36

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

41 The Contractor will not be allowed an extension of Contract time because of a delay in
42 the performance of the work attributable to the exercise of the Engineer's right
43 hereunder.
44

45 Upon correction of all deficiencies, the Engineer will notify the Contractor and the
46 Contracting Agency, in writing, of the date upon which the work was considered
47 physically complete. That date shall constitute the Physical Completion Date of the
48 Contract but shall not imply acceptance of the work or that all the obligations of the
49 Contractor under the contract have been fulfilled.
50

1 **1-05.11(3) Operational Testing**

2
3 It is the intent of the Contracting Agency to have at the Physical Completion Date a
4 complete and operable system. Therefore, when the work involves the installation of
5 machinery or other mechanical equipment; street lighting, electrical distribution or signal
6 systems; irrigation systems; buildings; or other similar work it may be desirable for the
7 Engineer to have the Contractor operate and test the work for a period of time after final
8 inspection but prior to the physical completion date. Whenever items of work are listed in
9 the Contract Provisions for operational testing, they shall be fully tested under operating
10 conditions for the time period specified to ensure their acceptability prior to the Physical
11 Completion Date. During and following the test period, the Contractor shall correct any
12 items of workmanship, materials, or equipment which prove faulty, or that are not in first
13 class operating condition. Equipment, electrical controls, meters, or other devices and
14 equipment to be tested during this period shall be tested under the observation of the
15 Engineer, so that the Engineer may determine their suitability for the purpose for which
16 they were installed. The Physical Completion Date cannot be established until testing
17 and corrections have been completed to the satisfaction of the Engineer.

18
19 The costs for power, gas, labor, material, supplies, and everything else needed to
20 successfully complete operational testing, shall be included in the unit Contract prices
21 related to the system being tested, unless specifically set forth otherwise in the proposal.

22
23 Operational and test periods, when required by the Engineer, shall not affect a
24 manufacturer's guaranties or warranties furnished under the terms of the Contract.

25
26 *Add the following new section:*

27
28 **1-05.12(1) One-Year Guarantee Period**
29 **(March 8, 2013 APWA GSP)**

30
31 The Contractor shall return to the project and repair or replace all defects in
32 workmanship and material discovered within one year after Final Acceptance of the
33 Work. The Contractor shall start work to remedy any such defects within 7 calendar
34 days of receiving Contracting Agency's written notice of a defect, and shall complete
35 such work within the time stated in the Contracting Agency's notice. In case of an
36 emergency, where damage may result from delay or where loss of services may result,
37 such corrections may be made by the Contracting Agency's own forces or another
38 Contractor, in which case the cost of corrections shall be paid by the Contractor. In the
39 event the Contractor does not accomplish corrections within the time specified, the work
40 will be otherwise accomplished and the cost of same shall be paid by the Contractor.

41
42 When corrections of defects are made, the Contractor shall then be responsible for
43 correcting all defects in workmanship and materials in the corrected work for one year
44 after acceptance of the corrections by Contracting Agency.

45
46 This guarantee is supplemental to and does not limit or affect the requirements that the
47 Contractor's work comply with the requirements of the Contract or any other legal rights
48 or remedies of the Contracting Agency.

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

3
4 *Delete the sixth and seventh paragraphs of this section.*

5
6 **1-05.15 Method of Serving Notices**
7 **(March 25, 2009 APWA GSP)**

8 *Revise the second paragraph to read:*

9
10 All correspondence from the Contractor shall be directed to the Project Engineer. All
11 correspondence from the Contractor constituting any notification, notice of protest, notice
12 of dispute, or other correspondence constituting notification required to be furnished
13 under the Contract, must be in paper format, hand delivered or sent via mail delivery
14 service to the Project Engineer's office. Electronic copies such as e-mails or
15 electronically delivered copies of correspondence will not constitute such notice and will
16 not comply with the requirements of the Contract.

17
18 *Add the following new section:*

19
20 **1-05.16 Water and Power**
21 **(October 1, 2005 APWA GSP)**

22
23 The Contractor shall make necessary arrangements, and shall bear the costs for power
24 and water necessary for the performance of the work, unless the Contract includes
25 power and water as a pay item.
26
27
28

SUBMITTAL TRANSMITTAL FORM

Streets Initiative Package #37 - Rebid
Project Number PWK-00434-37
Specification No. PW23-0203F

ATTN: Construction Division Date: _____

Submittal Number _____

Specification Number _____ Bid Item No. _____

Submittal Description _____

We are sending you:

Copies	Date	Page	Description

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 **1-06 CONTROL OF MATERIAL**

2
3 **1-06.1 Approval of Materials Prior To Use**
4 **(September 15, 2010 Tacoma GSP)**

5 *The first sentence is revised to read:*

6
7 All materials and equipment shall be submitted for review in accordance with section 1-
8 05.3 of these special provisions.

9
10 For aggregates, the Contractor shall notify the Engineer of all proposed aggregates.
11 The Contractor shall use the Aggregate Source Approval (ASA) Database.

12
13 All equipment, materials, and articles incorporated into the permanent Work:

- 14
15 1. Shall be new, unless the Special Provisions or Standard Specifications permit
16 otherwise;
17
18 2. Shall meet the requirements of the Contract and be approved by the Engineer;
19
20 3. May be inspected or tested at any time during their preparation and use; and
21
22 4. Shall not be used in the Work if they become unfit after being previously
23 approved.
24

25 **1-06.1(1) Qualified Products List (QPL)**

26 *This section is revised in its entirety to read:*

27
28 QPL's are not accepted by the City.
29

30 **1-06.1(2) Request for Approval of Material (RAM)**

31 *This section is deleted in its entirety.*

32
33 **1-06.6 Recycled Materials**
34 **(January 4, 2016 APWA GSP)**

35
36 *Delete this section, including its subsections, and replace it with the following:*

37
38 The Contractor shall make their best effort to utilize recycled materials in the
39 construction of the project. Approval of such material use shall be as detailed elsewhere
40 in the Standard Specifications.

41
42 Prior to Physical Completion the Contractor shall report the quantity of recycled
43 materials that were utilized in the construction of the project for each of the items listed
44 in Section 9-03.21. The report shall include hot mix asphalt, recycled concrete
45 aggregate, recycled glass, steel furnace slag and other recycled materials (e.g.
46 utilization of on-site material and aggregates from concrete returned to the supplier).
47 The Contractor's report shall be provided on DOT form 350-075 Recycled Materials
48 Reporting.
49

50 **END OF SECTION**

1 **1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC**

2
3 **1-07.1 Laws to be Observed**
4 **(October 1, 2005 APWA GSP)**

5 *Supplement this section with the following:*

6
7 In cases of conflict between different safety regulations, the more stringent regulation
8 shall apply.

9
10 The Washington State Department of Labor and Industries shall be the sole and
11 paramount administrative agency responsible for the administration of the provisions of
12 the Washington Industrial Safety and Health Act of 1973 (WISHA).

13
14 The Contractor shall maintain at the project site office, or other well known place at the
15 project site, all articles necessary for providing first aid to the injured. The Contractor
16 shall establish, publish, and make known to all employees, procedures for ensuring
17 immediate removal to a hospital, or doctor's care, persons, including employees, who
18 may have been injured on the project site. Employees should not be permitted to work
19 on the project site before the Contractor has established and made known procedures
20 for removal of injured persons to a hospital or a doctor's care.

21
22 The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of
23 the Contractor's plant, appliances, and methods, and for any damage or injury resulting
24 from their failure, or improper maintenance, use, or operation. The Contractor shall be
25 solely and completely responsible for the conditions of the project site, including safety
26 for all persons and property in the performance of the work. This requirement shall
27 apply continuously, and not be limited to normal working hours. The required or implied
28 duty of the Engineer to conduct construction review of the Contractor's performance
29 does not, and shall not, be intended to include review and adequacy of the Contractor's
30 safety measures in, on, or near the project site.

31
32 **1-07.2 State Taxes**
33 **(January 6, 2015 TACOMA GSP)**

34 *Supplement this section with the following:*

35
36 Washington State Department of Revenue Rules 170 and 171 shall apply as shown in
37 the Proposal and per Section 1-07.2 of the WSDOT and APWA Standard Specifications
38 for Road, Bridge, and Municipal Construction.

39
40 **1-07.9 Wages**

41
42 **1-07.9(5) Required Documents**
43 **(March 1, 2004 Tacoma GSP)**

44 *The first sentence of the third paragraph is revised to read:*

45
46 Weekly certified payrolls shall be submitted for the Contractor and all lower tier
47 subcontractors or agents.

1 *This section is supplemented with the following:*

2
3 Where fringe benefits are paid in cash, certified payrolls shall include the fringe benefit
4 dollar amount paid to each employee for each employee classification.

5
6 Where fringe benefits are paid into approved plans, funds, or programs, the amount of
7 the fringe benefits shall be identified in the "Benefit Distribution" section of the Certified
8 Payroll Affirmation form.

9
10 **1-07.15 Temporary Water Pollution/Erosion Control**
11 **(March 23, 2010 Tacoma GSP)**

12 *This section is supplemented with the following:*

13
14 Stormwater or dewatering water that has come in contact with concrete rubble, concrete
15 pours, or cement treated soils shall be maintained to pH 8.5 or less before it is allowed
16 to enter waters of the State or the City stormwater system. If pH exceeds 8.5, the
17 Contractor shall immediately discontinue work and initiate treatment according to the
18 plan to lower the pH. Work may resume, with treatment, once the pH of the stormwater
19 is 8.5 or less or it can be demonstrated that the runoff will not reach surface waters or
20 the City stormwater system.

21
22 High pH process water shall not be discharged to waters of the State or the City
23 stormwater system. Unless specific measures are identified in the Special Provisions,
24 high pH water may be infiltrated, dispersed in vegetation or compost, or discharged to a
25 sanitary sewer system. Disposal shall be in accordance with the City of Tacoma Surface
26 Water Management Manual or to City wastewater system with proper approval. Water
27 being infiltrated or dispersed shall have no chance of discharging directly to waters of
28 the State or the City stormwater system, including wetlands or conveyances that
29 indirectly lead to waters of the State. High pH process water shall be treated to within a
30 range of 6.5 to 8.5 pH units prior to infiltration to ensure the discharge does not cause a
31 violation of groundwater quality standards. If water is discharged to the sanitary sewer,
32 the Contractor shall provide a copy of permits and requirements for placing the material
33 into a sanitary sewer system prior to beginning the work. Process water may be
34 collected and disposed of by the Contractor off the project site. The Contractor shall
35 provide a copy of the permit for an approved waste site for the disposal of the process
36 water prior to the start of work that generates the process water. A Special Approved
37 Discharge permit shall be required for all discharges to the sanitary sewer system.

38
39 **1-07.15(1) Spill Prevention, Control and Countermeasures Plan**
40 **(February 9, 2011 Tacoma GSP)**

41 *This section is revised to read:*

42
43 The Contractor shall prepare a project-specific spill prevention, control, and
44 countermeasures plan (SPCC Plan) that will be used for the duration of the project. The
45 Contractor shall submit the plan to the Project Engineer no later than the date of the
46 preconstruction conference. No on-site construction activities may commence until the
47 Contracting Agency accepts an SPCC Plan for the project.

48
49 The SPCC Plan shall address all fuels, petroleum products, hazardous materials, and
50 other materials as defined in Chapter 447 of the WSDOT Environmental Procedures
51 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.
3. Stockpiling contaminated materials.

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):

- 1 A. Name of material and its intended use.
- 2 B. Estimated maximum amount on-site at any one time.
- 3 C. Location(s) (including any equipment used below the ordinary high water line)
- 4 where the material will be staged, used, and stored and the distance(s) from
- 5 nearby waterways and sensitive areas.
- 6 D. Decontamination location and procedure for equipment that comes into
- 7 contact with the material.
- 8 E. Disposal procedures.
- 9 F. Include a Material Safety Data Sheet (MSDS) for each potentially hazardous
- 10 material.

11 5. Pre-Existing Contamination

12 Describe any pre-existing contamination and contaminant sources (such as

13 buried pipes or tanks) in the project area that are described in the Contract

14 documents. Identify equipment and work practices that will be used to prevent

15 the release of contamination.

16

17 6. Spill Prevention and Response Training

18 Describe how and when all personnel (including refueling Contractors and

19 Subcontractors) will be trained in spill prevention, containment, and response in

20 accordance with the Plan. Describe how and when all spill responders will be

21 trained in accordance with WAC 296-824.

22

23 7. Spill Prevention

24 Describe the following items:

25

- 26 A. Spill response kit contents and location(s).
- 27 B. Security measures for potential spill sources.
- 28 C. Secondary containment practices and structures for all containers to handle
- 29 the maximum volume of potential spill of hazardous materials.
- 30 D. Methods used to prevent stormwater from contacting hazardous materials.
- 31 E. Site inspection procedures and frequency.
- 32 F. Equipment and structure maintenance practices.
- 33 G. Daily inspection and cleanup procedures that ensure all equipment used
- 34 below the ordinary high water line is free of all external petroleum-based
- 35 products.
- 36 H. Refueling procedures for equipment that cannot be moved from below the
- 37 ordinary high water line.
- 38

39 8. Spill Response

40 Outline the response procedures the Contractor will follow for each scenario

41 listed below. Include a description of the actions the Contractor shall take and the

42 specific on-site spill response equipment that shall be used to assess the spill,

43 secure the area, contain and eliminate the spill source, and clean up and dispose

44 of spilled and contaminated material.

45

46 Response procedures shall be outlined in the Spill Response section and shall

47 include notification to the City of Tacoma Wastewater Treatment Plant

48 Operations number at 253.591.5595 and the City Source Control Spill Response

49 number at 253.502.2222.

50

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

10
11 If the Contractor will use a Subcontractor for spill response, provide contact
12 information for the Subcontractor under item 1 (above), identify when the
13 Subcontractor will be used, and describe actions the Contractor shall take while
14 waiting for the Subcontractor to respond.

15
16 9. Project Site Map

17 Provide a map showing the following items:

- 18
- 19 A. Site location and boundaries.
- 20 B. Site access roads.
- 21 C. Drainage pathways from the site.
- 22 D. Nearby waterways and sensitive areas.
- 23 E. Hazardous materials, equipment, and decontamination areas identified in 4,
24 above.
- 25 F. Pre-existing contamination or contaminant sources described in 5, above.
- 26 G. Spill prevention and response equipment described in 7 and 8, above.

27
28 10. Spill Report Forms

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

31
32 **Payment**

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

35
36 "SPCC Plan," lump sum.

37
38 When the written SPCC Plan is accepted by the Contracting Agency, the Contractor
39 shall receive 50-percent of the lump sum Contract price for the plan.

40
41 The remaining 50-percent of the lump sum price will be paid after the materials and
42 equipment called for in the plan are mobilized to the project.

43
44 The lump sum payment for "SPCC Plan" shall be full pay for:

- 45
- 46 1. All costs associated with creating the accepted SPCC Plan.
- 47
- 48 2. All costs associated with providing and maintaining the on-site spill prevention
49 equipment described in the accepted SPCC Plan.
- 50

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/mailling, 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/mailling.

The newsletter/mailling 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 (March 7, 2017 Tacoma GSP)

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
- Lumen, Contact: Al (Aliyah) Skaro, relocations@lumen.com
- Comcast, Contact: Todd Gallant, phone: (253) 878-4955,
todd_gallant@cable.comcast.com
- AT&T/Siena Engineering Group, Contact: Louie Van Hollebeke, phone: (425) 896-9850; louie.vanhollebeke@sienaengineeringgroup.com OR Steve Duppenhaler, phone: (425) 286-3822; sd1891@att.com OR Roberta Anderson, phone: (425) 896-9839; roberta.anderson@sienaengineeringgroup.com
- 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;
sschauer@cogentco.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 various days. See GIS Map Application layer for location and day of pick up for each Work-site.

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

(December 17, 2019 Tacoma GSP)

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

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

1 **1-07.23 Public Convenience and Safety**

2
3 **1-07.23(1) Construction Under Traffic**
4 **(May 2, 2017 APWA GSP)**

5
6 *Revise the third sentence of the second paragraph to read:*

7
8 Accessibility to existing or temporary pedestrian push buttons shall not be impaired; if
9 approved by the Contracting Agency activating pedestrian recall timing or other
10 accommodation may be allowed during construction.

11
12 **1-07.23(1) Construction under Traffic**
13 **(March 1, 2004 Tacoma GSP)**

14 *This section is supplemented with the following:*

15
16 The following special traffic requirements shall be adhered to during all phases of
17 construction:

18
19 **EXCEPTION:**

20
21 **A. Non-arterial Classified Roadway Requirements:**

- 22 1. If two-way traffic cannot be maintained on the subject roadway, then the roadway
23 can be permitted to be closed to traffic so long as local access to properties and
24 businesses is accommodated in the following scenarios:

- 25
26 • During construction working hours when arrangements in advance have been
27 made through coordination between the requestor, the contractor, and the
28 City;
29 • During construction working hours when special/emergency access is
30 needed;
31 • During construction working hours when emergency services needs to use
32 the roadway;
33 • During construction working hours when passage through/along the work
34 area is the only means to access an intersecting road and/or adjacent
35 property; and
36 • During non-construction hours (concrete curing is considered part of
37 "construction hours")

- 38
39 2. During non-construction hours, the project area shall be left in a state that
40 permits on street parking (as was allowable prior to project start) so long as the
41 permitted parking does not hamper the flow of traffic, temporary traffic control,
42 and/or safety.

- 43
44 3. Project Work-sites adjacent to or encroaching within a classified arterial street
45 shall not hinder the safety or traffic operations of the arterial street such that two-
46 way vehicular traffic, preserving the same total number of travel lanes, cannot be
47 maintained at all times (which can include parking restrictions to allow for the
48 roadway space needed). If this cannot be practicably achieved, then refer to
49 additional arterial roadway-related requirements in the section below.

- 50
51 4. Any work/traffic control provision that affects pedestrian accessibility at a given
52 corner of an intersection must be limited to that given corner, with the remaining

three corners at the intersection (at a minimum) being used to facilitate a pedestrian detour, until full accessibility or an accessible connection with at least one other corner can be re-established. Regardless of location/situation, any temporary pedestrian access path/route that may be employed shall provide equivalent to, or better, accessibility than the unavailable path/route in accordance with the Americans with Disabilities Act and the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG). Combination of Work-sites affecting overall pedestrian mobility shall be scheduled so as not to require pedestrians, especially students, to cross roadways multiple times in order to avoid construction zones/follow the prescribed pedestrian detour route.

5. Even if adjacent roadway vehicle traffic is closed/restricted, there shall be at least one parallel pedestrian route (equivalent accessibility to the pre-existing conditions) that is available to traverse along the closed roadway. Regardless of the roadway control provisions, if any pedestrian route cannot be maintained (with adequate supporting reasoning), then a signed pedestrian detour route (or pedestrian bypass meeting or exceeding City's requirements) must be established and approved by the City.

6. Spotters are required to assist all pedestrians through or around the active work zone that impacts sidewalk accessibility that cannot be reasonably accommodated through pedestrian detour or pedestrian bypass as part of the applicable approved traffic control plan for the Work-site. The non-active Work-site/zone shall not be configured in a way that would require spotters to assist during non-working hours.

B. Arterial Classified Roadway Requirements:

1. For work occurring on or within an arterial roadway with two total through lanes and no additional lanes, the following restrictions apply:
 - Two-way traffic, within 11-foot clear width lanes, must be maintained at all times, but if this is not practicable:
 - One-lane flagger control operation during active work times can be proposed for review and possible acceptance, so long as two-way traffic can be re-established during non-working times;
 - If one-lane flagger control is not possible (with sufficient justification provided) and/or two-way traffic cannot be established during non-working times, then an arterial-based detour and PCMS deployment (in advance and throughout the condition) will be required to be submitted for review and approval prior to start of work/implementation of temporary controls.
2. For work occurring on or within an arterial roadway with two total through lanes and a continuous center turn lane, the following restrictions apply:
 - Two-way traffic, within 11-foot clear width lanes (or 10-foot clear lanes if opposing traffic flows are separated by a work zone), must be maintained at all times, but if this is not practicable:
 - One-lane flagger control operation during active work times can be proposed for review and possible acceptance, so long as two-way traffic can be re-established during non-working times;

- If one-lane flagger control is not possible (with sufficient justification provided) and/or two-way traffic cannot be established during non-working times, then an arterial-based detour and PCMS deployment (in advance and throughout the condition) will be required to be submitted for review and approval prior to start of work/implementation of temporary controls.
3. For work occurring on or within an arterial roadway with two total through lanes and continuous parking lanes (with or without adjoining bike lanes), the following restrictions apply:
 - Two-way traffic, within 11-foot clear width lanes (or 10-foot clear lanes if opposing traffic flows are separated by a work zone), must be maintained at all times by utilizing the additional space afforded by adjacent parking/bike lanes so long as they are properly signed for restriction at least 72 hours in advance and the deployment of the signs does not hinder access or use for time preceding the restriction.
 4. For work occurring on or within an arterial roadway with two or more through lanes in each direction of travel, the following restrictions apply:
 - Two-way traffic, within 10-foot clear width lanes, must be maintained at all times, and:
 - A single lane in a given direction, and only in one direction at any given time, can be closed during working hours so long as the resulting adjacent lanes are maintained at a minimum 10-foot clear width; if this lane can be safely and practicably re-opening during non-working times, then this will be expected.
 - If the single lane in a given direction must remain closed during working and non-working hours, then it must be pre-approved by the City and the duration of the closure must be minimized to the extent possible.
 5. Any work/traffic control provision that affects pedestrian accessibility at a given corner of an intersection must be limited to that given corner, with the remaining three corners at the intersection (at a minimum) being used to facilitate a pedestrian detour, until full accessibility or an accessible connection with at least one other corner can be re-established. Regardless of location/situation, any temporary pedestrian access path/route that may be employed shall provide equivalent to, or better, accessibility than the unavailable path/route in accordance with the Americans with Disabilities Act and the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG). Combination of Work-sites affecting overall pedestrian mobility shall be scheduled so as not to require pedestrians, especially students, to cross roadways multiple times in order to avoid construction zones/follow the prescribed pedestrian detour route.
 6. Even if adjacent roadway vehicle traffic is closed/restricted, there shall be at least one parallel pedestrian route (equivalent accessibility to the pre-existing conditions) that is available to traverse along the closed roadway. Regardless of the roadway control provisions, if any pedestrian route cannot be maintained (with adequate supporting reasoning), then a signed

1 pedestrian detour route (or pedestrian bypass meeting or exceeding City's
2 requirements) must be established and approved by the City.
3

- 4 7. All work on arterial streets requires seven (7) days advance notice via
5 PCMS to the traveling public who would encounter the work zone, and for
6 the extent of the work if two-way traffic cannot be practicably maintained
7 and/or if the pre-existing number of through travel lanes cannot be
8 maintained during working or non-working hours.
9

10 C. General Requirements Regardless of Road Classification:

- 11 1. Any roadway excavation will be required to be properly restored (either in
12 temporary or permanent fashion) within 48 hours of completing the
13 excavation.
14
- 15 2. Any work zones, and associated temporary traffic control elements/extents,
16 cannot overlap and adjacent work zones would require a minimum
17 separation of 1,000 feet; separate work zones that cannot meet these
18 requirements can be proposed as a larger common work zone via submitted
19 traffic control plan for approval consideration; temporary traffic control
20 devices utilized during low-light or night-time conditions shall be affixed with
21 Type C steady burn lights.
22
- 23 3. Any work, work zone, and/or temporary traffic control elements that alter or
24 otherwise hinder the operation of a signal-controlled intersection will require
25 commensurate adjustment of signal control elements (with City
26 review/coordination/approval and at least 10 working days' advance notice)
27 to meet City Standards and MUTCD requirements and/or control of the
28 intersection/intersection approach(es) by Uniformed Police Officers during
29 working hours; these provisions would also be requirement during non-
30 working hours if the impact cannot be mitigated prior to active work
31 concluding for the work shift/day.
32
- 33 4. Any work, work zone, and/or temporary traffic control elements that affect
34 roadway routes, intersections, and/or crosswalks utilized by school-related
35 traffic shall minimize impacts during school arrival and dismissal periods
36 (i.e., 30 minutes before and after school start and dismissal times) and shall
37 include additional provisions, such as spotters, to address school-related
38 activity adjacent to or near to the work site.
39
- 40 5. Any work, work zone, and/or temporary traffic control elements that affect
41 roadway routes and/or intersections utilized by bus (transit or school) traffic
42 or associated bus stops shall include additional provisions to account for the
43 specific needs and/or coordinate at least seven (7) calendar days in
44 advance regarding re-routing of bus route, relocation of the bus stop, or
45 temporary closure of the bus stop—with any execution to be arranged and
46 carried out by the agreed upon party.
47

48 To minimize the disruption to access to adjacent properties, and to Pierce Transit
49 operations, the lane closure area shall be limited to that area of active work and
50 necessary for appropriate lane closure tapers. The Contractor shall stage work to
51 maintain access to and egress from all properties at all times.
52

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

4
5 Where, in the opinion of the Engineer, parking is a hazard to through traffic or to the
6 construction work, parking may be restricted either entirely or during the time when it
7 creates a hazard. Signs for restricting parking shall be approved by the City and placed
8 by the Contractor. The Contractor shall be responsible for and shall maintain all such
9 signs. The replacement of signs restricting parking shall be as approved by the
10 Engineer.

11
12 The Contractor shall notify all property owners and tenants of detours, street and alley
13 closures, or other restrictions that may interfere with their access. Notification shall be at
14 least five (5) calendar days in advance for affected properties.

15
16 Emergency traffic, such as police, fire, and disaster units, shall be provided access at all
17 times. In addition, the Contractor shall coordinate Contractor activities with all disposal
18 firms and transit bus service that may be operating in the project area.

19
20 If street closures or lane restrictions, not provided for in the Specifications, are allowed
21 subsequent to award of the contract, an equitable adjustment of the Contract amount
22 shall be negotiated.

23
24 It is the intent of the Contract to effectively prevent the deposition of debris on streets in
25 areas of public traffic or where such debris may be transported into a drainage system.
26 When construction operations are such that debris from the work is deposited on the
27 streets, the Contractor shall, at a minimum, remove on a daily basis any deposits or
28 debris which may accumulate on the roadway surface. Should daily removal be
29 insufficient to keep the streets clean, the Contractor shall perform removal operations on
30 a more frequent basis. If the Engineer determines that a more frequent cleaning is
31 impractical or if the Contractor fails to keep the streets free from deposits and debris
32 resulting from the work, the Contractor shall, upon order of the Engineer, provide
33 facilities for and remove all deposits from the tires or between wheels before trucks or
34 other equipment will be allowed to travel over paved streets. Should the Contractor fail
35 or refuse to clean the streets in question, or the trucks or equipment in question, the
36 Engineer may order the work suspended at the Contractor's risk until compliance with
37 Contractor's obligations is assured, or the Engineer may order the streets in question
38 cleaned by others and such costs incurred by the City in achieving compliance with
39 these contract requirements, including cleaning of the streets, shall be deducted from
40 moneys due or to become due the Contractor on monthly estimate. The Contractor shall
41 have no claim for delay or additional costs should the Engineer choose to suspend the
42 Contractor's work until compliance is achieved.

43
44 *The fifth paragraph of this section is supplemented with the following:*

45
46 An all-weather, functional roadway shall consist of a minimum four inch (4") layer of
47 crushed surfacing base material to be provided and maintained on all roadway areas
48 disturbed by construction and used to maintain vehicular traffic as required by these
49 Special Provisions.

1 The unit Contract price for "Crushed Surfacing Base Course," at per ton, as listed in the
2 Proposal shall be full pay for all labor, equipment, and materials required to furnish,
3 place, compact, and grade the material necessary to maintain an all weather functional
4 roadway.

5
6 The Proposal quantity for "Crushed Surfacing Base Course" is intended to provide for
7 the additional material necessary to maintain an all-weather, functional roadway as
8 described above and is an estimate only.

9
10 *The sixth paragraph of this section is supplemented with the following:*

11
12 Trenches backfilled with CDF shall be protected from traffic with steel plates. The plates
13 shall remain in place for 24-hours after placement of the CDF or until CDF is compacted
14 or hardened to prevent rutting by construction equipment or traffic.

15
16 **1-07.23(2) Construction and Maintenance of Detours**
17 **(April 1, 2018 Tacoma GSP)**

18 *This section is supplemented with the following:*

19
20 Detour signing during any allowed road closures shall be in accordance with Detour
21 Plans, when included in the Contract Documents. When plans are not included in the
22 Contract Documents, the Contractor shall submit plans for detours in accordance with
23 the "Manual on Uniform Traffic Control Devices (MUTCD)". In addition, where the
24 Contractor believes an alternate plan will safely and adequately maintain vehicular and
25 pedestrian traffic, the Contractor may submit alternate plans to those for traffic control
26 and detours required by MUTCD or contract documents. Such alternate plans must
27 comply with the MUTCD and shall be in writing and submitted to the Engineer at least
28 fifteen (15) days in advance of their intended use. In general, detouring of arterial traffic
29 must be accomplished on streets designated as City Arterials. Detouring of arterial
30 traffic on non-arterial streets will not be allowed. The acceptance of any alternate plan
31 shall be entirely at the discretion of the Engineer and the Contractor shall have no claim
32 by reason of a plan being rejected or modified, nor shall there be any additional payment
33 by reason of using a substitute plan.

34
35 The Contractor shall notify the Engineer three (3) working days in advance of
36 implementation of any street closures/detours allowed under the Contract. Advance
37 notice signing shall be placed a minimum of three (3) working days prior to
38 implementation of any street closure/detour.

39
40 A minimum of five (5) working days (seven days for Pierce Transit/School
41 Transportation) prior to any street closure, the Contractor shall notify all entities below:

42
43 Tacoma Fire Dept. (253-591-5775)
44 Tacoma Police Dept. (253-591-5932)
45 LESA Communications Center (253-798-4721 - Opt.#2)
46 Tacoma Public Schools Transportation Office (253-571-1853)
47 Pierce Transit (253-581-8001)
48 Tacoma Environmental Services Solid Waste (253-591-5544)
49 Tacoma Public Works Engineering Division (253-591-5500)
50 Tacoma Public Works Streets and Grounds (253-591-5495)

1 **1-07.24 Rights of Way**
2 **(July 23, 2015 APWA GSP)**
3

4 *Delete this section and replace it with the following:*
5

6 Street Right of Way lines, limits of easements, and limits of construction permits are
7 indicated in the Plans. The Contractor's construction activities shall be confined within
8 these limits, unless arrangements for use of private property are made.
9

10 Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of
11 way and easements, both permanent and temporary, necessary for carrying out the
12 work. Exceptions to this are noted in the Bid Documents or will be brought to the
13 Contractor's attention by a duly issued Addendum.
14

15 Whenever any of the work is accomplished on or through property other than public
16 Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any
17 easement agreement obtained by the Contracting Agency from the owner of the private
18 property. Copies of the easement agreements may be included in the Contract
19 Provisions or made available to the Contractor as soon as practical after they have been
20 obtained by the Engineer.
21

22 Whenever easements or rights of entry have not been acquired prior to advertising,
23 these areas are so noted in the Plans. The Contractor shall not proceed with any portion
24 of the work in areas where right of way, easements or rights of entry have not been
25 acquired until the Engineer certifies to the Contractor that the right of way or easement is
26 available or that the right of entry has been received. If the Contractor is delayed due to
27 acts of omission on the part of the Contracting Agency in obtaining easements, rights of
28 entry or right of way, the Contractor will be entitled to an extension of time. The
29 Contractor agrees that such delay shall not be a breach of contract.
30

31 Each property owner shall be given 48 hours notice prior to entry by the Contractor.
32 This includes entry onto easements and private property where private improvements
33 must be adjusted.
34

35 The Contractor shall be responsible for providing, without expense or liability to the
36 Contracting Agency, any additional land and access thereto that the Contractor may
37 desire for temporary construction facilities, storage of materials, or other Contractor
38 needs. However, before using any private property, whether adjoining the work or not,
39 the Contractor shall file with the Engineer a written permission of the private property
40 owner, and, upon vacating the premises, a written release from the property owner of
41 each property disturbed or otherwise interfered with by reasons of construction pursued
42 under this contract. The statement shall be signed by the private property owner, or
43 proper authority acting for the owner of the private property affected, stating that
44 permission has been granted to use the property and all necessary permits have been
45 obtained or, in the case of a release, that the restoration of the property has been
46 satisfactorily accomplished. The statement shall include the parcel number, address,
47 and date of signature. Written releases must be filed with the Engineer before the
48 Completion Date will be established.
49

50 **END OF SECTION**
51

1 **1-08 PROSECUTION AND PROGRESS**

2
3 *Add the following new section:*

4 **1-08.0 Preliminary Matters**
5 **(May 25, 2006 APWA GSP)**

6
7 **1-08.0(1) Preconstruction Conference**
8 **(October 10, 2008 APWA GSP)**

9
10 Prior to the Contractor beginning the work, a preconstruction conference will be held
11 between the Contractor, the Engineer and such other interested parties as may be
12 invited. The purpose of the preconstruction conference will be:

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

21
22 The Contractor shall prepare and submit at the preconstruction conference the following:

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

26
27 *Add the following new section:*

28 **1-08.0(2) Hours of Work**
29 **(March 3, 2008 Tacoma GSP)**

30
31 Except in the case of emergency or unless otherwise approved by the Contracting
32 Agency, the normal straight time working hours for the contract shall be any consecutive
33 8-hour period between 7:00 a.m. and 6:00 p.m. of a working day with a maximum 1-hour
34 lunch break and a 5-day work week. The normal straight time 8-hour working period for
35 the contract shall be established at the preconstruction conference or prior to the
36 Contractor commencing the work.

37
38 If a Contractor desires to perform work on holidays, Saturdays, Sundays, or before 7:00
39 a.m. or after 6:00 p.m. on any day, the Contractor shall apply in writing to the Engineer
40 for permission to work such times. Permission to work longer than an 8-hour period
41 between 7:00 a.m. and 6:00 p.m. is not required. Such requests shall be submitted to
42 the Engineer no later than noon on the working day prior to the day for which the
43 Contractor is requesting permission to work.

44
45 Permission to work between the hours of 9:00 p.m. and 7:00 a.m. during weekdays and
46 between the hours of 9:00 p.m. and 9:00 a.m. on weekends or holidays may also be
47 subject to noise control requirements. Approval to continue work during these hours
48 may be revoked at any time the Contractor exceeds the Contracting Agency's noise
49 control regulations or complaints are received from the public or adjoining property
50 owners regarding the noise from the Contractor's operations. The Contractor shall have
51 no claim for damages or delays should such permission be revoked for these reasons.

1
2 Permission to work Saturdays, Sundays, holidays or other than the agreed upon normal
3 straight time working hours Monday through Friday may be given subject to certain other
4 conditions set forth by the Contracting Agency or Engineer. These conditions may
5 include but are not limited to: requiring the Engineer or such assistants as the Engineer
6 may deem necessary to be present during the work; requiring the Contractor to
7 reimburse the Contracting Agency for the costs in excess of straight-time costs for
8 Contracting Agency employees who worked during such times, on non Federal aid
9 projects; considering the work performed on Saturdays and holidays as working days
10 with regards to the contract time; and considering multiple work shifts as multiple
11 working days with respect to contract time even though the multiple shifts occur in a
12 single 24-hour period. Assistants may include, but are not limited to, survey crews;
13 personnel from the Contracting Agency's material testing lab; inspectors; and other
14 Contracting Agency employees when in the opinion of the Engineer, such work
15 necessitates their presence.

16
17 *Add the following new section:*

18 **1-08.0(3) Reimbursement for Overtime Work of Contracting Agency Employees**
19 **(September 29, 2009 Tacoma GSP)**

20
21 Where the Contractor elects to work on a Saturday, Sunday, or holiday, or longer than
22 an 8-hour work shift on a regular working day, as defined in the Standard Specifications,
23 such work shall be considered as overtime work. On all such overtime work, city staff
24 may be required at the discretion of the Engineer. In such case, the Contracting Agency
25 may deduct from amounts due or to become due to the Contractor for the costs in
26 excess of the straight-time costs for employees of the Contracting Agency required to
27 work overtime hours.

28
29 The Contractor by these specifications does hereby authorize the Engineer to deduct
30 such costs from the amount due or to become due to the Contractor.

31
32 **1-08.1 Subcontracting - D/M/WBE Reporting**
33 **(September 29, 2009 Tacoma GSP)**

34 *The eighth paragraph is revised to read:*

35
36 On all projects funded with Contracting Agency funds only, the Contractor shall certify to
37 the actual amounts paid Disadvantaged, Minority, or Women's Business Enterprise firms
38 that were used as subcontractors, lower tier subcontractors, manufacturers, regular
39 dealers, or service providers on the contract. This certification shall be submitted to the
40 Engineer, on the form provided by the Engineer, 20 calendar days after physical
41 completion of the contract.

42
43 **1-08.3(2)B Type B Progress Schedule**
44 **(March 13, 2012 APWA GSP)**

45 *Revise the first paragraph to read:*

46
47 The Contractor shall submit a preliminary Type B Progress Schedule at or prior to the
48 preconstruction conference. The preliminary Type B Progress Schedule shall comply
49 with all of these requirements and the requirements of Section 1-08.3(1), except that it
50 may be limited to only those activities occurring within the first 60-working days of the
51 project.

1 *Revise the first sentence of the second paragraph to read:*

2
3 The Contractor shall submit 6 copies of a Type B Progress Schedule depicting the entire
4 project no later than 21-calendar days after the preconstruction conference.

5
6 **1-08.4 Prosecution of Work**

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

8
9 **1-08.4 Notice to Proceed and Prosecution of Work**
10 **(July 23, 2015 APWA GSP)**

11
12 Notice to Proceed will be given after the contract has been executed and the contract
13 bond and evidence of insurance have been approved and filed by the Contracting
14 Agency. The Contractor shall not commence with the work until the Notice to Proceed
15 has been given by the Engineer. The Contractor shall commence construction activities
16 on the project site within ten days of the Notice to Proceed Date, unless otherwise
17 approved in writing. The Contractor shall diligently pursue the work to the physical
18 completion date within the time specified in the contract. Voluntary shutdown or slowing
19 of operations by the Contractor shall not relieve the Contractor of the responsibility to
20 complete the work within the time(s) specified in the contract.

21
22 When shown in the Plans, the first order of work shall be the installation of high visibility
23 fencing to delineate all areas for protection or restoration, as described in the Contract.
24 Installation of high visibility fencing adjacent to the roadway shall occur after the
25 placement of all necessary signs and traffic control devices in accordance with 1-10.1(2).
26 Upon construction of the fencing, the Contractor shall request the Engineer to inspect
27 the fence. No other work shall be performed on the site until the Contracting Agency has
28 accepted the installation of high visibility fencing, as described in the Contract.

29
30 **1-08.5 Time for Completion**
31 **(March 16, 2016 Tacoma GSP)**

32 *Revise the third and fourth paragraphs to read:*

33
34 Contract time shall begin on the first working day following the Notice to Proceed Date.

35
36 Each working day shall be charged to the contract as it occurs, until the contract work is
37 physically complete. If substantial completion has been granted and all the authorized
38 working days have been used, charging of working days will cease. Each week the
39 Engineer will provide the Contractor a statement that shows the number of working days:
40 (1) charged to the contract the week before; (2) specified for the physical completion of
41 the contract; and (3) remaining for the physical completion of the contract. The
42 statement will also show the nonworking days and any partial or whole day the Engineer
43 declares as unworkable. Within 10 calendar days after the date of each statement, the
44 Contractor shall file a written protest of any alleged discrepancies in it. To be considered
45 by the Engineer, the protest shall be in sufficient detail to enable the Engineer to
46 ascertain the basis and amount of time disputed. By not filing such detailed protest in
47 that period, the Contractor shall be deemed as having accepted the statement as
48 correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10
49 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily
50 be charged as a working day then the fifth day of that week will be charged as a working
51 day whether or not the Contractor works on that day.

1 *Revise the sixth paragraph to read:*

2
3 The Engineer will give the Contractor written notice of the completion date of the
4 contract after all the Contractor's obligations under the contract have been performed by
5 the Contractor. The following events must occur before the Completion Date can be
6 established:

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

20
21 *This section is supplemented with the following:*

22 *(*****)*

23
24 The project has three Work-sites that are considered priority in schedule. The contractor
25 shall start on the Offsite Improvements for Go Philly Work-site, then the Pedestrian
26 Ramps at the intersection of S 68th & S Oakes Work-sites, then the Bulbout Pedestrian
27 Ramps at the intersection of S 70th & S Oakes Work-sites. The contractor shall not
28 perform any work on other Work-sites until the priority Work-sites are substantially
29 completed and accepted by the Engineer.

30
31 For the remaining Work-sites listed in Appendix B, the Contractor shall provide a
32 schedule of Work-sites with a maximum of 12 active Work-sites per schedule prior to
33 commencing work to be accepted by the Engineer. Engineer reserves the right to modify
34 the number of Work-sites per schedule. Contractor shall not perform any work on other
35 Work-sites until the previous Work-sites is completed and restoration is accepted by the
36 Engineer per Section 5-05 Cement Concrete Pavement and Section 8-14 Cement
37 Concrete Sidewalks.

38
39 This project shall be physically completed within **225** working days.

40
41 **1-08.9 Liquidated Damages**
42 **(August 14, 2013 APWA GSP)**

43 *Revise the fourth paragraph to read:*

44
45 When the Contract Work has progressed to Substantial Completion as defined in the
46 Contract, the Engineer may determine that the work is Substantially Complete. The
47 Engineer will notify the Contractor in writing of the Substantial Completion Date. For
48 overruns in Contract time occurring after the date so established, the formula for
49 liquidated damages shown above will not apply. For overruns in Contract time occurring
50 after the Substantial Completion Date, liquidated damages shall be assessed on the
51 basis of direct engineering and related costs assignable to the project until the actual

1 Physical Completion Date of all the Contract Work. The Contractor shall complete the
2 remaining Work as promptly as possible. Upon request by the Project Engineer, the
3 Contractor shall furnish a written schedule for completing the physical Work on the
4 Contract.

5
6
7
8

END OF SECTION

1 **1-09 MEASUREMENT AND PAYMENT**

2
3 **1-09.2(1) General Requirements for Weighing Equipment**
4 **(July 23, 2015 APWA GSP, Option 2)**

5
6 *Revise item 4 of the fifth paragraph to read:*

- 7
8 4. Test results and scale weight records for each day's hauling operations are
9 provided to the Engineer daily. Reporting shall utilize WSDOT form 422-027,
10 Scaleman's Daily Report, unless the printed ticket contains the same information
11 that is on the Scaleman's Daily Report Form. The scale operator must provide
12 AM and/or PM tare weights for each truck on the printed ticket.

13
14 **1-09.6 Force Account**
15 **(October 10, 2008 APWA GSP)**

16 *Supplement this Section with the following:*

17
18 The Contracting Agency has estimated and included in the Proposal, dollar amounts for
19 all items to be paid per force account, only to provide a common proposal for Bidders.
20 All such dollar amounts are to become a part of Contractor's total bid. However, the
21 Contracting Agency does not warrant expressly or by implication that the actual amount
22 of work will correspond with those estimates. Payment will be made on the basis of the
23 amount of work actually authorized by Engineer.

24
25 **(January 13, 2011 Tacoma GSP)**

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

27
28 The Contractor shall submit a comprehensive summary list of all equipment anticipated
29 to be used on the project and their associated AGC/WSDOT Equipment Rental Rates.
30 The list shall include the contractor's equipment number, make, model, year, operation
31 rate, standby rate, applicable attachments and any other applicable information
32 necessary to determine the applicable rates in accordance with this section. In addition,
33 the contractor shall submit an Equipment Watch rate sheet (www.equipmentwatch.com)
34 for each piece of equipment in the summary list. Access to the Equipment Watch web
35 site is available at the City's Construction Management Office.

36
37 **1-09.9 Payments**
38 **(March 13, 2012 APWA GSP)**

39
40 *Delete the first four paragraphs and replace them with the following:*

41
42 The basis of payment will be the actual quantities of Work performed according to the
43 Contract and as specified for payment.

44
45 The Contractor shall submit a breakdown of the cost of lump sum bid items at the
46 Preconstruction Conference, to enable the Project Engineer to determine the Work
47 performed on a monthly basis. A breakdown is not required for lump sum items that
48 include a basis for incremental payments as part of the respective Specification. Absent
49 a lump sum breakdown, the Project Engineer will make a determination based on
50 information available. The Project Engineer's determination of the cost of work shall be
51 final.

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

4
5 The initial progress estimate will be made not later than 30 days after the Contractor
6 commences the work, and successive progress estimates will be made every month
7 thereafter until the Completion Date. Progress estimates made during progress of the
8 work are tentative, and made only for the purpose of determining progress payments.
9 The progress estimates are subject to change at any time prior to the calculation of the
10 final payment.

11
12 The value of the progress estimate will be the sum of the following:

- 13 1. Unit Price Items in the Bid Form — the approximate quantity of acceptable
14 units of work completed multiplied by the unit price.
- 15 2. Lump Sum Items in the Bid Form — based on the approved Contractor's lump
16 sum breakdown for that item, or absent such a breakdown, based on the
17 Engineer's determination.
- 18 3. Materials on Hand — 100 percent of invoiced cost of material delivered to Job
19 site or other storage area approved by the Engineer.
- 20 4. Change Orders — entitlement for approved extra cost or completed extra work
21 as determined by the Engineer.

22
23 Progress payments will be made in accordance with the progress estimate less:

- 24 1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
- 25 2. The amount of progress payments previously made; and
- 26 3. Funds withheld by the Contracting Agency for disbursement in accordance with
27 the Contract Documents.

28
29 Progress payments for work performed shall not be evidence of acceptable performance
30 or an admission by the Contracting Agency that any work has been satisfactorily
31 completed. The determination of payments under the contract will be final in accordance
32 with Section 1-05.1.

33
34 *This section is supplemented with the following:*
35 **(January 6, 2015 Tacoma GSP)**

36
37 Breakdowns of all lump sum items shall be provided for all lump sum items and shall
38 include all costs for labor, equipment, materials, and taxes (as applicable) associated
39 with the lump sum item. Washington State Department of Revenue Rules 170 and 171
40 apply to lump sum items per Section 1-07.2 of the WSDOT State Amendments to the
41 Standard Specifications.

42
43 Stockpiled Material - The point of acceptance of stockpiled material for payment and
44 quality shall be at the time of incorporation into the contract.

1 **1-09.9(1) Retainage**
2 **(May 10, 2006 Tacoma GSP)**

3 *The fourth paragraph is supplemented with the following:*
4

5 6. A "General Release to the City of Tacoma" is on file with the Contracting Agency.

6 7. A release has been obtained from the City of Tacoma's City Clerk's Office.
7

8 **1-09.13(3)A Administration of Arbitration**
9 **(October 1, 2005 APWA GSP)**

10 *Revise the third paragraph to read:*
11

12 The Contracting Agency and the Contractor mutually agree to be bound by the decision
13 of the arbitrator, and judgment upon the award rendered by the arbitrator may be
14 entered in the Superior Court of the county in which the Contracting Agency's
15 headquarters are located. The decision of the arbitrator and the specific basis for the
16 decision shall be in writing. The arbitrator shall use the contract as a basis for decisions.
17
18

19 **END OF SECTION**
20

1 **1-10 TEMPORARY TRAFFIC CONTROL**

2
3 **1-10.1(2) Description**

4 **(July 22, 2019 Tacoma GSP)**

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

6
7 The Contractor shall keep lanes, on-ramps, and off-ramps open to traffic at all times
8 except when Work requires closure(s) that have been requested and approved in
9 accordance with section 1-10.2(2).

10
11 *The third sentence of the fourth paragraph is revised to read:*

12
13 Approved lane and ramp closures shall be for the minimum time required to complete
14 the Work.

15
16 *This section is supplemented with the following:*

17
18 Only uniformed off-duty police officers shall be used to control traffic when it is
19 necessary to override or provide traffic control at signalized intersections. Off-duty City
20 of Tacoma Police Department officers are preferred within the jurisdiction of the Tacoma
21 PD, and the Contractor shall grant the Tacoma PD the "first right of refusal" by
22 contacting the Tacoma PD first as stated below.

23
24 The City will make all necessary temporary adjustments to existing traffic signals and
25 traffic signal activators.

26
27 Existing signs shall not be removed until the Contractor has provided for temporary
28 measures sufficient to safeguard and direct traffic after existing signs have been
29 removed. Preservation of temporary traffic control and street name signs shall be the
30 sole responsibility of the Contractor.

31
32 As the work progresses and permits, temporarily relocated and/or removed traffic signs
33 shall be reset in their permanent location. Permanent signs and other traffic control
34 devices damaged or lost by the Contractor shall be replaced or repaired at the
35 Contractor's expense.

36
37 **Traffic Control Management**

38 **1-10.2(1) General**

39 **(October 3, 2022)**

40 The Traffic Control Supervisor shall be certified by one of the following:

41
42 The Northwest Laborers-Employers Training Trust
43 27055 Ohio Ave.
44 Kingston, WA 98346
45 (360) 297-3035
46 <https://www.nwlett.edu>

47
48 Evergreen Safety Council
49 12545 135th 11 Ave. NE
50 Kirkland, WA 98034-8709
51 1-800-521-0778
52 <https://www.esc.org>

1 The American Traffic Safety Services Association
2 15 Riverside Parkway, Suite 100
3 Fredericksburg, Virginia 22406-1022
4 Training Dept. Toll Free (877) 642-4637
5 Phone: (540) 368-1701
6 <https://atssa.com/training>

8 Integrity Safety
9 13912 NE 20th Ave.
10 Vancouver, WA 98686
11 (360) 574-6071
12 <https://www.integritysafety.com>

14 US Safety Alliance
15 (904) 705-5660
16 <https://www.ussafetyalliance.com>

18 K&D Services Inc.
19 2719 Rockefeller Ave.
20 Everett, WA 98201
21 (800) 343-4049
22 <https://www.kndservices.net>

24 **1-10.2(2) Traffic Control Plans**
25 **(*****)**

27 *This section is supplemented with the following:*

29 Appendix D includes the City of Tacoma Traffic Control Handbook with traffic control
30 templates. Traffic Control plans shall be submitted and approved by the City depicting
31 the Work-sites included in the work zone prior to any work occurring at the work zone.
32 Traffic Control plans for each work zone containing multiple Work-sites shall be paid per
33 work zone defined by the Traffic Control plan. Work zones are limited to one block or
34 one intersection per Traffic Control Plan. All costs incurred for Traffic Control plans shall
35 be included in the price per each for "Arterial Work Zone Temporary Traffic Control", per
36 each, and "Residential Work Zone Temporary Traffic Control", per each.

38 **1-10.3 Traffic Control Labor, Procedures, and Devices**

40 **1-10.3(1) Traffic Control Labor**

41 *The first paragraph is revised to read:*

43 The Contractor shall furnish all personnel for flagging and spotting, for the execution of all
44 procedures related to temporary traffic control and for the setup, maintenance and removal
45 of all temporary traffic control devices and construction signs necessary to control
46 vehicular, bicycle, and pedestrian traffic during construction operations.

48 **1-10.3(1)A Flaggers**

49 *This heading is revised to read:*

1 **1-10.3(1)A Flaggers and Spotters**

2 **(*****)**

3
4 *This section is supplemented with the following:*

5
6 The Contractor shall provide a spotter where needed and when indicated on the plans
7 and/or with these Specifications. The spotters sole duties are as follows: the spotter shall
8 walk ahead of the construction vehicle in the direction of vehicle travel to insure no
9 pedestrians or other vulnerable road users are in the path of vehicle travel, as well as
10 exclusively assisting with the navigation of pedestrians through, around, adjacent to,
11 and/or through the work zone or adjoining traffic control areas as indicated in the traffic
12 control plans or as directed to do so on-site. In the course of these responsibilities, the
13 spotter shall signal the associated work vehicle to stop should a pedestrian or other
14 vulnerable road user be in the immediate path of the vehicle. The work vehicle shall
15 remain stopped under the direction of the spotter until all pedestrians/vulnerable users
16 are out of the immediate path of the vehicle. Spotters shall assist pedestrians in
17 navigating around or through the work zone as needed and in accordance with the
18 active temporary traffic control plan. All costs associated with providing flagging and
19 spotting required for the duration of the contract shall be included in the proposal item,
20 "Arterial Work Zone Temporary Traffic Control", per each and "Residential Work Zone
21 Temporary Traffic Control", per each.

22
23 **1-10.3(1)B Other Traffic Control Labor**

24 *The first sentence is revised to read:*

25
26 In addition to flagging duties, the Contractor shall provide personnel for all other traffic
27 control procedures required by the construction operations and for the labor and
28 equipment to install, maintain, and remove any traffic control devices shown on Traffic
29 Control Plans.

30
31 **1-10.3(2) Traffic Control Procedures**

32 *Section 1-10.3(2) is supplemented with the following:*

33
34 **1-10.3(3)A Construction Signs**

35 **(January 11, 2006 Tacoma GSP)**

36 *The fifth paragraph is revised to read:*

37
38 Signs, posts, or supports that are lost, stolen, damaged, destroyed, or which the
39 Engineer deems to be unacceptable while their use is required on the project shall be
40 replaced by the Contractor at their expense.

41
42 **1-10.3(3)C Portable Changeable Message Sign**

43 **(August 4, 2010 Tacoma GSP)**

44 *This section is supplemented with the following:*

45
46 Portable Changeable Message Signs shall be required on arterials streets where
47 construction occurs for durations longer than seven (7) calendar days or when otherwise
48 called for (per Section 1-07.23) or required by the City. Signs shall be solar charged and
49 programmable. Signs shall be provided a minimum of seven (7) calendar days prior to
50 construction and remain through the duration of the construction on the arterial street.
51 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, "Arterial Work Zone Temporary Traffic Control", per each

1-10.4(1) Lump Sum Bid for Project (No Unit Items)
(*****)

This section is revised to read:

When the Bid Proposal contains the items "Arterial Work Zone Temporary Traffic Control" and "Residential Work Zone Temporary Traffic Control", there will be no measurement of unit items for Work defined by Section 1-10.

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(1) Lump Sum Bid for Project (No Unit Items)
(*****)

This section is revised to read:

"Arterial Work Zone Temporary Traffic Control", per each

"Residential Work Zone Temporary Traffic Control", per each

The per each Contract payment shall be full compensation for all costs incurred by the Contractor in performing the Contract Work defined in Section 1-10 necessary to perform the Work.

The per each Contract payment shall be full compensation for all costs incurred by the Contractor in performing the Contract Work defined in Section 1-10 necessary to perform the Work except for costs compensated by Bid Proposal items inserted through Contract Provisions as described in **Section 1-10.4(2)**. **The unit Contract price, shall be full compensation for all costs incurred by the Contractor in performing the Work for providing "Pedestrian Traffic Control", "Project Temporary Traffic Control" and "Spotter" in accordance with section 1-10.**

The per each Contract payment includes all traffic control for each work zone regardless of the number of street frontages, traffic control plans or working days utilized by the Contractor for each site.

END OF SECTION

2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP

(*****)

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. Additionally, where "Clearing & Grubbing" limits are not indicated the contractor shall clear, grub, and cleanup those areas necessary for completion of the contracted Work.

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 as shown on the Plans.
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 and certified Arborist, 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. All tree trimming must be done by or under the direction of a certified Arborist.
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 in accordance with Standard Plans LS-08 through LS-11.
9. Trim all shrubs and brush which covers sidewalks, curb, curb and gutter, and curb ramps to a minimum of four inches from the edge of sidewalk or as directed by the Engineer or Certified Arborist.
10. Remove and dispose of, or relocate the following existing features where necessary within the project limits or as indicated on the Plans:
 - a. Cement concrete gutter boxes.
 - b. Relocate Eco Blocks to a location outside of the paving limits.

- 1 11. Perform all work as required by the certified Arborist Reports to protect, remove,
2 trim, prune roots or limbs, and any other works detailed in the Arborist
3 Reports. This includes all labor, time, and materials for this work. This work shall
4 be performed on Force Account per Section 1-09.6.
- 5 12. Remove trees as indicated on the plans or as directed by the Engineer or
6 certified Arborist. The tree removal shall include stump grinding to eight inches
7 below final grade and removal of roots according to the Plans and Specifications,
8 and as directed by the Engineer and certified Arborist, such that a new tree can
9 be planted in the same area.
- 10 13. All stumps identified for stump grinding or as directed by the Engineer or certified
11 Arborist shall be ground to eight inches below final grade.

12
13 *This section is added:*

14
15 **2-01.3(1)A Tree Protection**

16
17 Trees not marked for removal or in clearing and grubbing limits shall be protected in
18 accordance with Standard Specifications, Urban Forestry Manual, City of Tacoma
19 Standard Plan, and certified arborist recommendations. Protection activities shall
20 include, but are not limited to, use of straight edge buckets for excavation, hand digging
21 where necessary, clean cutting roots that need removal, root shaving, installing wire
22 mesh and fencing, protecting cut roots.

23
24 **2-01.3(2) Grubbing**

25 *Item e is revised to read:*

26
27 Upon which embankments will be placed, except stumps may be close-cut or trimmed
28 as allowed in Section 2-01.3(1) item 4.

29
30 *This section is supplemented with the following:*

31
32 **2-01.3(5) Certified Arborist**

33
34 The Contractor shall provide a certified Arborist on site to assess and provide Arborist
35 Reports or arborist logs for all work within the Tree Protection Zone of a tree in
36 accordance with the Urban Forestry Manual and the Tacoma Municipal Code
37 13.06.502. All work done in the critical root zone shall be in compliance with the Arborist
38 Report provided by the certified Arborist or under the direction of the certified Arborist.

39
40 The certified Arborist shall be on site to assess and provide direction for all tree
41 trimming, limb or root pruning of greater than 4 inches, and tree removals as specified in
42 the Plans or other tree work as directed by the Engineer. The certified Arborist shall
43 submit an Arborist Report to the Engineer per section 1-05.3

44
45 The Arborist shall be certified by the International Society of Arboriculture (ISA).

46
47 **2-01.3(6) Definition of Vegetation**

48
49 A "tree" is defined as any self-supporting, woody perennial plant having a main stem
50 (trunk) and which normally attains a height of at least ten (10) feet at maturity, usually
51 with one (1) main stem or trunk and many branches.

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

4
5 "Brush" is defined as any perennial vegetation which normally attains a height of ten (10)
6 feet or less at maturity, which is not maintained as part of a landscape feature, which is
7 "volunteer" growth or which exists in a naturalized state. Examples include but are not
8 limited to stands of blackberries and scotch broom.

9 10 **2-01.3(7) Tree and Stump Classifications**

11
12 Trees shall be classified by the measured diameter at a point four and one-half (4-½)
13 feet above average ground level. Trees that have several stems at the four and one-half
14 (4-½) foot height will be considered a tree clump. The largest diameter single stem will
15 be measured and will dictate the class rating. Only the largest, single stem in the clump
16 will be utilized for measurement and payment.

17
18 Stumps shall be classified by the measured diameter at the highest point of the stump
19 above the average ground level or a point four and one-half (4-1/2) feet above the
20 average ground level, whichever is less.

21
22 Trees and stumps will be classified as follows:

- 23
24 Less than 4 inches Class 0
25 4 inches up to but not including 12 inches Class I
26 12 inches up to but not including 24 inches Class II
27 24 inches up to and including 42 inches Class III
28 Greater than 42 inches (Tree height greater than 30 feet) Class IV
29 Greater than 42 inches (Tree height of 30 feet or less) Class V
30

31 **2-01.4 Measurement**

32 *This section is supplemented with the following:*

33
34 No specific unit of measurement shall apply to the lump sum item "Certified Arborist".

35
36 No specific unit of measurement shall apply to "Certified Arborist Assessment Report
37 Compliance", by force account.

38 39 **2-01.5 Payment**

40 *(*****)*

41
42 *The Bid item "Clearing and Grubbing" is supplemented with the following:*

43
44 In addition, the lump sum Contract price for "Clearing and Grubbing" shall be full pay for
45 native growth protection and tree protection, including tree protection fencing in
46 accordance with Standard Plans LS-08 thru LS-11.

47
48 *This section is supplemented with the following:*

49
50 "Certified Arborist", lump sum

1
2 The lump sum contract price for "Certified Arborist" shall be full pay for all labor,
3 materials, and equipment to provide a certified Arborist on site prior to and during
4 construction to perform all tree assessments, provide tree assessment reports, direct
5 and assess all tree trimming, root and limb pruning, tree removals or other tree work (not
6 included in other bid items) as directed by the Engineer and in accordance with the
7 Contract. No extra payment shall be made for any delays in construction schedule to
8 provide a certified Arborist and comply with the certified Arborists assessments and
9 reports.

10
11 "Certified Arborist Assessment Report Compliance", by force account

12
13 An estimated amount is entered into the bid proposal for "Certified Arborist Assessment
14 Report Compliance", by force account. The Contractor will be compensated by force
15 account per Section 1-09.6 for all Work related to the Arborist Assessment Report as
16 directed by the Certified Arborist or as directed by the Engineer as specified in this
17 Section.

18
19
20 **END OF SECTION**
21
22

2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

(***)**

2-02.1 Description

This Section is revised to read:

The Work described in this section includes removing and disposing of, or salvaging, relocating, materials and features or appurtenances as shown on the Contract Plans and according to the Specifications.

The Work also includes performing utility location through test holes according to these special provisions, for determining the location and depth of existing utilities or structures.

Backfilling of trenches, holes, or pits resulting from this Work is included.

2-02.2 Materials

This section is revised to read:

Materials shall include all material or equipment needed to excavate, remove, shore, salvage and store, and to replace existing material.

2-02.3 Construction Requirements

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

As shown per Plans, Specifications and per these Special Provisions, the Contractor shall relocate or raze, remove, and dispose of all underground structures and utilities, fences, landscaping walls, extruded curbs, rubble, rocks and boulders, and any other obstructions that form an obstacle to construction.

2-02.3(3) Removal of Pavement, Sidewalks, and Curbs

This section is deleted.

This Section is supplemented with the following:

The Contractor shall haul and dispose of all soil material excavated from the Project site in accordance with Special Provisions Sections 2-03 and 2-17.

Section 2-02.3 is supplemented with the following:

2-02.3(5) Existing Traffic Signs

Any street name signs, traffic signs and parking signs that exist in the work area shall be salvaged and/or replaced as shown on the plans or directed by the Engineer.

2-02.3(7) Existing Irrigation Systems

The Engineer shall verify, in the presence of the owner and Contractor, operation, location, and existing pressure capabilities and continuity of existing private systems prior to excavation and removal. Not all existing sprinkler heads may be shown on the plans.

1 The Contractor shall cut and cap the existing systems to remain in place. The work
2 shall include testing the resulting sprinkler system operation, and making the
3 necessary repairs and modifications as directed by the Engineer. Sprinkler heads,
4 pipe, wiring, control valves or other irrigation materials removed will be given to the
5 owner for their use in making necessary modifications to their remaining irrigation
6 system. If the Contractor damages any of these materials during clearing &
7 grubbing, excavation and removal and storage, the Contractor will replace the
8 damaged materials with new of same make and model, or approved equal.
9 Replacement of damaged materials will be at the Contractor's expense.

10
11 Removal of materials, cutting and capping, and all additional work of reconnecting,
12 and making necessary modifications, including installation of new point of connection
13 equipment and/ or improvements to provide a working, functional system shall be as
14 directed by the Engineer and according to Section 8-03, except payment shall be
15 according to Section 2-02.5.

16 17 **2-02.4 Vacant**

18 *This Section including the heading is revised to read:*

19 20 **2-02.4 Measurement**

21 *This section is supplemented with the following:*

22
23 Borings with piezometers to be abandoned will be measured per each.

24
25 Measurement of the test hole shall be measured per linear foot from the surface of the
26 existing ground to the bottom of the excavated test hole.

27
28 No specific unit of measurement will apply to "Existing Irrigation Systems" per force
29 account, which shall be itemized by the contractor.

30 31 **2-02.5 Payment**

32 *This section is revised to read:*

33
34 Payment will be made in accordance with Section 1-04.1, for the following Bid items
35 when they are included in the Proposal:

36
37 "Removal of Structures and Obstructions", lump sum

38
39 Any relocation, salvage, demolition and removal Work according to these specifications
40 and not specifically included in other bid items shall be paid for under "Removal of
41 Structures and Obstructions", lump sum.

42
43 "Existing Irrigation Systems", by force account

44
45 Cutting, removing, capping, and modifying, repairing existing irrigation systems in
46 accordance with these Specifications and Special Provisions shall be paid by force
47 account in accordance with Section 1-09.6.

48
49
50 **END OF SECTION**

1 **2-03 ROADWAY EXCAVATION AND EMBANKMENT**

2 **(*****)**

3
4 **2-03.1 Description**

5 *The last sentence of the first paragraph is deleted.*

6
7 **2-03.3 Construction Requirements**

8
9 For this Work the Roadway Excavation includes excavating the subgrade for repairs and
10 in relation to curb ramps and sidewalk work.

11
12 A reasonable quantity has been estimated in the Proposal to provide a common basis of
13 bid. The Roadway Excavation quantity is subject to Special Provision Section 1-04.6.

14
15 Roadway Excavation related to the repair of the subgrade shall be in accordance with
16 Sections 2-06 and 2-03.

17
18 At North Tacoma Work locations, the Contractor shall follow regulations for soil
19 management regarding potential ASARCO Plume Arsenic and Lead contamination.
20 Appendix C to these special provisions contains the City of Tacoma Soil Management
21 Plan as a supplement to these specifications.

22
23 All excavated material that is contaminated shall be loaded by the contractor into dump
24 trucks and properly disposed of in accordance with all applicable Washington State and
25 local regulations at contractor's cost.

26
27 All costs for excavation and loading the material into the dump trucks shall be included
28 in the unit pay item "Roadway Excavation of Contaminated Material, Incl. Haul".

29
30 **2-03.3(5) Slope Treatment**

31 *This section is deleted.*

32
33 **2-03.3(19) Removal of Pavement, Sidewalks, Curbs, and Gutters**

34 *This section is deleted.*

35
36 **2-03.4 Measurement**

37
38 The measurement for "Roadway Excavation___" is revised to read:

39
40 "Roadway Excavation___" will be measured by the cubic yard. All excavated material
41 will be measured in the position it occupied before the excavation was performed. The
42 average excavation depth multiplied by the excavation area shall define the
43 measurement required for construction in accordance with the Plans, Specifications, and
44 Special Provisions, or as determined by the Engineer.
45
46

1 **2-03.5 Payment**

2
3 *This section is supplemented with the following:*

4
5 The bid items "Roadway Excavation, ____" shall include any Unsuitable Foundation
6 Excavation.

7
8 "Roadway Excavation of Contaminated Material, Incl. Haul", per cubic yard.

9
10 The unit Contract price per cubic yard for "Roadway Excavation of Contaminated
11 Material, Incl. Haul" shall be full compensation for all costs incurred for excavating,
12 loading, placing, disposal and haul to LRI or other approved facility, but excluding tipping
13 fees.

14
15
16 **END OF SECTION**
17
18

1 **2-06 SUBGRADE PREPARATION**

2 **(*****)**

3
4 **2-06.3 Construction Requirements**

5 *This section is supplemented with the following:*

6
7 **Subgrade Repair for Subgrade Not Constructed Under Same Contract**

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

16
17 **Subgrade Maintenance and Protection**

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

26
27 The Contractor and City Inspector should walk the exposed subgrade on a daily basis to
28 determine if there is damage to the subgrade. Any Subgrade areas that require repair
29 according to this section shall be determined solely by the City Inspector.

30
31 When the Engineer determines that concrete pavement restoration shall be delayed, the
32 Engineer may direct the Contractor to construct a temporary driving surface.

33
34 **2-06.5 Measurement and Payment**

35 *This section is supplemented with the following:*

36
37 Subgrade Maintenance and Protection shall be included in the price per square yard for
38 the associated pavement removal for all subgrade.

39
40 If the contractor fails to protect the subgrade so that additional subgrade repairs are
41 required as determined by the City Inspector, then the city shall not owe payment for
42 these additional subgrade repairs in accordance with Section 2-06.3.

43
44 Where directed by the Engineer, the Contracting Agency will pay for temporary driving
45 surface construction for materials used as applicable according to 2-06.5(2) no. 3.

46
47 The cost of removal including haul and disposal of temporary paving materials shall be
48 included in the Contract price for these materials.

49
50 **2-06.5(2) Subgrade Not Constructed Under Same Contract**

51 *Item 5 under this section is deleted.*

52
53 **END OF SECTION**

1 **2-09 STRUCTURE EXCAVATION**
2 **(March 17, 2016 Tacoma GSP)**
3

4 **2-09.4 Measurement**

5 *This section is supplemented with the following:*
6

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

10
11 *The fourth paragraph is revised to read:*
12

13 There will be no specific unit of measure for the excavation required for manholes, catch
14 basins, grate inlets, and drop inlets.
15

16 **2-09.5 Payment**

17 *The pay item for "Structure Excavation Class B" is supplemented with the following:*
18

19 "Structure Excavation Class B", per cubic yard.
20

21 The unit Contract price for "Structure Excavation Class B" shall be full payment for all
22 excavation, removal of water; storing, protecting and re-handling of suitable backfill
23 material; backfilling of the trench, compaction of backfill, and all other work necessary for
24 the construction of the sewer trench.
25

26 **END OF SECTION**
27
28

1 **2-14 PAVEMENT REMOVAL**
2 **(March 17, 2003 Tacoma GSP)**
3

4 **2-14.1 Description**
5

6 The Work described in this section includes the removal and disposal of pavement
7 surfaces identified on the Plans or as marked in the field.
8

9 **2-14.2 Pavement Classification**
10

11 Removal of pavement will be according to type and class based on composition and
12 thickness, as defined below:
13

- | | | |
|----|------------------|-----------------------------------------------------------------------|
| 14 | Type I | Pavement removal where all or portions of the existing pavement is |
| 15 | | being removed in conjunction with street construction or any other |
| 16 | | removal not described below for Type II or Type III. |
| 17 | | |
| 18 | Type II | Pavement removal required for the placing of utilities at greater and |
| 19 | | varying depths, such as sewers. |
| 20 | | |
| 21 | Class A2 | Class A2 pavement removal shall apply to the removal of asphalt |
| 22 | | concrete, bituminous road surfacing, multiple lift bituminous surface |
| 23 | | treatments or any combination of these components having an |
| 24 | | average thickness of two inches or less. |
| 25 | | |
| 26 | Class A4 | Class A4 pavement removal shall apply to the removal of asphalt |
| 27 | | concrete, bituminous road surfacing, multiple lift bituminous surface |
| 28 | | treatments or any combination of these components having an |
| 29 | | average thickness between two inches and four inches. |
| 30 | | |
| 31 | Class C6 | Class C6 pavement removal shall apply to all non-reinforced cement |
| 32 | | concrete pavements or slabs having an average thickness of six |
| 33 | | inches or less. After the curbs and pavement have been constructed, |
| 34 | | the Contractor may be required to remove additional sidewalk |
| 35 | | necessary to provide proper connections and grades, as determined |
| 36 | | by the Engineer. |
| 37 | | |
| 38 | Class C12 | Class C12 pavement removal shall apply to all non-reinforced cement |
| 39 | | concrete pavements or slabs having an average thickness of between |
| 40 | | 6 inches and 12 inches. |
| 41 | | |
| 42 | Class CA | Class CA pavement removal shall apply to all pavements that have a |
| 43 | | wearing surface of asphalt concrete upon a cement concrete |
| 44 | | pavement or, cement concrete base, and for which the total combined |
| 45 | | thickness of the pavement averages between six inches and twelve |
| 46 | | inches. |
| 47 | | |

48 **2-14.3 Construction Requirements**
49

50 Each Work location shall be marked in the field by the Engineer, and the Engineer and
51 the Contractor shall discuss the Work on-site before the start of pavement removal.

1 Subgrade Maintenance and Protection according to Section 2-06 shall be included in the
2 Work and payment for pavement removal. Where the Contractor damages or
3 demolishes concrete road panels that are not marked for removal, the Contractor shall
4 replace these road panels according to the Plans, Specifications and Special Provisions
5 at his own cost.
6

7 At each separate work location, the Contractor shall restore the pavement according to
8 Plans, Provisions, and Specifications within two working days from the start of pavement
9 removal at the respective work location. The intent is to have one work day for removal
10 and any subgrade preparation, and one day for concrete paving at each location. Thus,
11 the Contractor shall schedule pavement removal accordingly, and the Engineer may
12 stop pavement removal activity when too many locations remain disrupted for a longer
13 time. Refer also to the Provision for Construction under Traffic, Section 1-07.23, and
14 Traffic Control Section 1-10.

15 Schedule exceptions may be made for subgrade repair according to Section 2-06, Field
16 Design according to Section 8-14, difficult traffic conditions, contamination sampling and
17 testing (See Sections 2-03 and 2-17), or other unforeseen conditions, all as approved by
18 the Engineer. In these cases, a temporary road surface shall be constructed as directed
19 by the Engineer and according to Special Provisions 2-06 and 5-04.
20

21 All final meet lines shall be sawcut. In case of a clean separation at a construction or
22 isolation joint, saw cutting may be omitted if approved by the Engineer. Existing rebar, tie
23 bars can be encountered while saw-cutting, and these shall be cut clean through at no
24 additional charge. It is unlikely dowels will be encountered. When dowels are
25 encountered the Engineer may approve a new saw-cut line behind the dowels to avoid
26 having to cut through these.
27

28 Where monolithic cement concrete pavement and curb are being removed, the curb
29 removal shall be considered as pavement removal, and the measurement for payment
30 will be to the back of the curb. The same shall apply to adjacent deteriorated existing
31 curb that cannot be saved as determined and approved by the Engineer
32

33 The removal of existing street improvements shall be conducted in such a manner as not
34 to damage utilities and any portion of the improvement that is to remain in place. Any
35 deviation in this matter will obligate the Contractor, at no expense to the Contracting
36 Agency, to repair, replace, or otherwise make proper restoration to the satisfaction of the
37 Engineer.
38

39 In the event a pavement averages more than the maximum thickness specified for its
40 class, an additional payment will be made to cover the extra thickness removed by a
41 proportional conversion into additional square yards.
42

43 **2-14.4 Measurement**

44

45 Pavement removal will be measured per square yard.
46

47 Type I pavement removal will be measured in its original position through the use of
48 survey techniques.
49
50

1 **2-14.5 Payment**

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

4
5 "Remove Existing Pavement, Type ____Class____", per square yard

6
7 All costs associated with saw cutting meet lines shall be included in the unit Contract
8 price for pavement removal. Saw cutting around or through tie bars and dowels shall be
9 performed at no additional cost to the City of Tacoma. In addition, the unit Contract price
10 for "Remove Existing Pavement, Type____Class____" per square yard shall include all
11 costs for the associated Subgrade Maintenance and Protection performed in accordance
12 with Section 2-06.

13
14
15 **END OF SECTION**
16
17

2-15 CURB AND CURB AND GUTTER REMOVAL

(***)**

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

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 saw cutting 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 Curb", per linear foot

The unit contract price, per linear foot, for "Remove Curb" shall include all classifications of curb, and curb and gutter, except for integral curb removed with the adjoining pavement which shall be paid for as described in Special Provision 2-14.

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

1 **2-16 REMOVAL OF CATCH BASINS, MANHOLES, CURB INLETS, ETC.**
2 **(March 17, 2003 Tacoma GSP)**
3

4 **2-16.1 Description**
5

6 The Work described in this section includes the complete removal and disposal of catch
7 basins, manholes, and curb inlets as identified on the Plans.
8

9 **2-16.2 Vacant**
10

11 **2-16.3 Construction Requirements**
12

13 Where the structures are removed, the excavation shall be backfilled with native material
14 if deemed suitable by the Engineer or imported backfill material.
15

16 Material determined by the Engineer to be unsuitable at the time of excavation shall be
17 removed and replaced with imported backfill material. Payment will be made at the unit
18 contract price of the item in the proposal, or as extra work under Section 1-04.4 if not
19 included as an item in the proposal.
20

21 All pipe openings shall be plugged in accordance with 7-08.3(4).
22

23 The removal of the structures shall be conducted in such a manner as not to damage
24 utilities and any portion of the improvement that is to remain in place. Any deviation in
25 this matter will obligate the Contractor, at no expense to the Contracting Agency, to
26 repair, replace, or otherwise make proper restoration to the satisfaction of the Engineer.
27

28 **2-16.4 Measurement**
29

30 The removal of catch basins, manholes, and curb inlets will be measured per each.
31

32 **2-16.5 Payment**
33

34 Payment will be made in accordance with Section 1-04.1.
35

36 "Remove Catch Basin", per each
37
38

39 All costs associated with the placement and compaction of the backfill material shall be
40 included in the unit Contract price for removal.
41
42
43

44 **END OF SECTION**
45

2-17 CONTROL AND MANAGEMENT OF CONTAMINATED MATERIALS IN TACOMA SMELTER PLUME

(***)**

2-17.1 Description

Contaminated soils with concentrations of arsenic (As) and lead (Pb) exceeding the levels listed in the Washington State Models Toxics Control Act (MTCA) cleanup regulations (Chapter 173-340 WAC) may be encountered at the project sites in North Tacoma, as indicated on the Asarco Plume Contamination Map included Appendix C. The Contractor shall operate within and meet all applicable laws and regulations associated with working with regulated materials encountered during excavation activities. The Contractor is notified of the existence of cleanup standards for site soils developed according to the MTCA.

During construction if the contractor encounters any contamination other than Arsenic and Lead the construction activities, at that location/street, shall cease and the Contracting Agency shall call and coordinate with Carol Serdar at the Washington State Department of Ecology.

Appendix C to these special provisions contains the City of Tacoma Soil Management Plan as a supplement to these specifications.

GIS Web Map Application also has a layer showing the Asarco Plume Contamination Map. See Appendix E for instructions.

2-17.1(1) General

Contaminated soils with concentrations of arsenic (As) and lead (Pb) exceeding the levels listed in the Washington State Models Toxics Control Act (MTCA) cleanup regulations (Chapter 173-340 WAC) may be encountered at North Tacoma Work locations and with very low probability under existing concrete pavements. The Contractor shall operate within and meet all applicable laws and regulations associated with working with regulated materials encountered during excavation activities. The Contractor is notified of the existence of cleanup standards for site soils developed according to the MTCA.

The Contractor is advised to review the applicable Washington Administrative Codes (WAC), Washington Department of Ecology (DOE), Washington State Department of Health (DOH), MTCA and Asarco Reports.

Websites for further information:

WAC: <http://apps.leg.wa.gov/wac/> (Title 173-303 & 173-340)

DOH: <http://www.doh.wa.gov/>

DOE: <http://www.ecy.wa.gov/>

MTCA: <http://www.ecy.wa.gov/pubs/9406.pdf>

Public Health Seattle and King County:
<http://www.kingcounty.gov/healthservices/health/ehs/toxic/ArsenicLead.aspx>

Pierce County Health Department:
<http://www.tpchd.org/index.php>

Environmental Protection Agency, Asarco Smelter Cleanup:
<http://www.epa.gov/region10>

Agency for Toxic Substances and Disease Registry, Facts on Arsenic:
<http://www.atsdr.cdc.gov/tfacts2.html>

Centers for Disease Control, Facts on Lead:
<http://www.cdc.gov/nceh/lead/publications/1997/factlead.htm>

Department of Health, Drinking Water:
<http://www.doh.wa.gov/ehp/dw>

2-17.1(2) Site Description

2-17.1(2)A Historical Land Use

The Tacoma smelter opened in 1890 as a lead smelter. Asarco purchased it in 1905 and converted it to copper smelting in 1912. The smelter operated for nearly 100 years, closing in 1986. The smelter specialized in processing ores with high arsenic concentrations.

The smelter used a 562-foot smokestack. The chemicals in the smoke from the stack were carried out by the wind, and settled to the ground over a 1,000 square mile area. Much of the soil in King and Pierce Counties has been contaminated with arsenic and lead. Arsenic is a human carcinogen, and lead can cause development disabilities. The Department of Ecology and state and local health departments are concerned about potential health risks to people exposed to the contamination.

2-17.1(2)B Soil Descriptions and Soil Quality

At North Tacoma Work locations, the Contractor shall sample and test the subgrade for Arsenic and Lead content when required according to the City of Tacoma Soil Management Plan or as directed by the Engineer.

2-17.1(3) Soil Management

Contaminated material presence is a remote possibility behind the curbs and under the existing concrete road panels for the North Tacoma work sites. The Contractor shall load any Roadway Excavation of contaminated material to be hauled and disposed directly into trucks and dispose of it as contaminated material at LRI Landfill, located at 30919 Meridian Street East, Graham, WA or a licensed solid waste disposal facility. A Waste Disposal Authorization (WDA) for LRI will be supplied to the Contractor at the beginning of the Construction Activities if applicable. The Contractor shall follow all provisions of the WDA. The City of Tacoma will pay all tipping fees directly to LRI for the disposed contaminated material.

1 **2-17.1(4) Submittals**

2
3 This paragraph lists submittals required for this project area if applicable upon soil
4 testing. Other submittals will be as required.

- 5 1. **Health and Safety Plan** – Section 2-17.2(2).
6 2. **Resume of Site Health and Safety Officer** – Section 2-17.2(3).
7 3. **Manifest Package and Supporting Analytical Data** – Section 2-17.3(2)D
8 4. **Soil Management Plan** – Section 2-17.2(5)
9 5. **Contractor and/or Subcontractor Environmental Qualifications**

10
11 **2-17.2 Health and Safety**

12
13 The Contractor shall be responsible for the health and safety conditions at the job site
14 related to the regulated substances. This includes the health and safety of workers and
15 public during work and non-working hours. The Contractor shall inform all workers and
16 visitors of the potential for exposure to regulated materials. The Contractor shall follow
17 regulatory procedures to prevent the release of contamination.

18
19 Contaminated material excavated during the project is considered solid waste. The
20 Contractor's Health and Safety Plan shall specify training requirements for the site,
21 including 24, 48, or 80-hour training OSHA training as referenced in WAC 296 843
22 20010, if applicable. The Contractor shall be responsible for all training costs.

23
24 **2-17.2(1) Health and Safety Laws and Regulations**

25
26 For all work conducted within the limits of this project site, the Contractor shall ensure
27 compliance with all applicable health and safety provisions for hazardous waste
28 operations, including requirements of the Federal Occupation Safety and Health Act of
29 1970 (OSHA) and all amendments, including 29 CFR Part 1910, WAC 296-843, as well
30 as any other applicable regulations. Failure to be thoroughly familiar with applicable
31 health and safety provisions shall not relieve the Contractor of the responsibility to fully
32 comply with all laws and regulations.

33
34 **2-17.2(2) Site Health and Safety Plan**

35
36 The Site Health and Safety Plan shall be prepared in accordance with WAC 173-340-
37 810. The Contractor shall develop a written Site Health and Safety Plan to be used for
38 the duration of the project. The plan shall incorporate all required city, county, state, and
39 federal health and safety provisions. The plan shall be submitted to the City within ten
40 (10) working days after execution of the contract. The Contractor is advised that the City
41 will review the Site Health and Safety Plan, but the Contractor is solely responsible for
42 ensuring that the Site Health and Safety Plan is implemented in accordance with the
43 regulatory requirements. At least one copy of the plan shall be maintained at the work
44 site. A properly qualified individual shall be assigned to serve as the Site Health and
45 Safety Officer, authorized to supervise and enforce compliance with the plan. The
46 Health and Safety Officer shall be responsible for monitoring the work area for health
47 hazards including sampling of the air, soil, and water as required to ensure worker
48 safety.
49
50

1 All provisions of the Site Health and Safety Plan shall apply to the Contractor,
2 Subcontractors, and all other visitors to the site. Approved Subcontractors may elect to
3 develop a site-specific plan, but this shall not relieve the Contractor of the requirements
4 and responsibilities described herein. The terms and provisions of a Subcontractor's
5 site-specific plan shall meet or exceed the Contractor's plan and shall be submitted to
6 the City or its agents prior to the Subcontractor commencing work.

7
8 The Site Health and Safety Plan shall comply with all applicable regulations and shall
9 include, but not be limited to:

- 10
11 1. A list of chemical hazards and physical hazards, allowable OSHA
12 exposure levels, threshold limit values, and all other regulatory exposure
13 levels.
- 14
15 2. If 24, 48, or 80 hour training is required by the Site Health and Safety
16 Plan, then the Contractor shall provide a list of all persons, by work
17 category/type, who will be trained. Photocopies of the employee's
18 training certificates shall be submitted to the Contracting Agency.
- 19
20 3. Engineering controls, work practices, personnel and equipment
21 decontamination procedures, and types of personal protective equipment
22 to be used.
- 23
24 4. A list of safety and monitoring equipment to be kept at the job site and its
25 storage location. A record of monitoring equipment calibration shall be
26 maintained.
- 27
28 5. A list of required health and safety information to be documented.
- 29
30 6. An emergency evacuation plan for immediate removal to the nearest
31 hospital or doctor's care for any person who may be injured on the job
32 site. It shall include evacuation routes to medical treatment and
33 emergency telephone numbers for hospitals, ambulances, police and fire
34 departments, poison control, and the City of Tacoma.
- 35

36 In the event the Health and Safety Plan is determined by a regulatory agency to be
37 inadequate to protect the employees and the public, then the Plan shall be modified by
38 the Contractor at the Contractor's sole expense.

39 40 **2-17.2(3) Site Health and Safety Officer**

41
42 The Contractor shall appoint a Site Health and Safety Officer for the project. The Health
43 and Safety Officer must meet the requirements contained in 29 CFR Part 1910 and
44 Chapter 296-62 WAC and who is qualified by experience and training in hazardous
45 waste operations in accordance with other applicable laws, regulations, and
46 requirements of this Section. The Site Health and Safety Officer shall be qualified and
47 authorized to monitor, supervise, and enforce safety compliance with the Site Health and
48 Safety Plan. A resume of the Site Health and Safety Officer's qualifications shall be
49 submitted to the City for review within five (5) working days of receiving the Notice to
50 Proceed. The Site Health and Safety Officer shall be on site at all times when work
51 operations involve excavation and trenching or at other times when the potential for
52 encountering hazardous substances exists as identified as contaminated soil in the
53 Plans and Section 2-17.

1 The Contractor shall be solely responsible for identification and monitoring of air (gases),
2 soil, dust, and groundwater with chemical constituents that could pose health and safety
3 concerns to site personnel. The Contractor shall provide for the protection of safety and
4 health of all workers and other authorized persons, including the City and its agents at
5 the jobsite from exposure to potentially hazardous substances.
6

7 The Contractor shall be solely responsible for ensuring that all necessary monitoring
8 equipment, protective clothing, and other supplies and equipment up to the appropriate
9 level of protection as defined by WISHA, OSHA, and other applicable guidelines are
10 available to implement the plan. No work shall take place in areas where hazardous
11 substances may potentially be present unless the Site Health and Safety Officer is
12 present and monitoring site conditions.
13

14 The Contractor, through the Site Health and Safety Officer, shall not permit any
15 employee, in the performance of the Contract, to work under conditions which are
16 hazardous to the employee. Should violations of the safety and health requirements be
17 called to the Site Health and Safety Officer's attention by the City, its agent, or any
18 authorized representative of a regulator agency, then the Contractor shall immediately
19 correct the identified conditions.
20

21 **2-17.2(4) Contractor Safety Equipment**

22

23 The Contractor shall maintain, at the job site, first-aid and safety equipment applicable to
24 the work as prescribed by the governing safety authorities. All required safety
25 equipment shall be kept in fully operational condition for the duration of the contract.
26

27 All personnel shall be trained in the use of the appropriate safety equipment that would
28 be utilized during the course of their work. The Site Health and Safety Officer shall
29 ascertain that the safety equipment is being used when appropriate and/or required.
30

31 **2-17.2(5) Soil Management Plan**

32

33 The Contractor shall submit a detailed plan for management of all excavated soils. The
34 plan shall include excavation, loading, and transporting procedures, dust control
35 procedures, and disposal of contaminated soils. The City of Tacoma Soil Management
36 Plan is included in Appendix C for the Contractor's use.
37

38 **2-17.3 Construction Requirements**

39

40 Where any excavation is intended for haul and disposal, the Contractor shall test the
41 subgrade for Arsenic and Lead content according to the City of Tacoma Soil
42 Management Plan or as directed by the Engineer. The Contractor shall fully develop and
43 implement a program in accordance with the Health and Safety Plan to ensure worker
44 health and safety and to minimize disruption to construction due to site contamination.
45

46 **2-17.3(1) Notification**

47

48 The Contractor shall notify the Contracting Agency, in writing, at least ten (10) working
49 days prior to the date that excavation operations are to begin and identify the limits of
50 that excavation. Excavation and sampling shall not take place without a designated
51 representative from the Contracting Agency on site.

1 **2-17.3(2) Transportation**

2
3 **2-17.3(2)A General**

4
5 The Contractor shall provide all equipment, personnel, and materials necessary to load
6 and transport waste materials, including contaminated soils and debris, for off-site
7 treatment and/or disposal in accordance with federal, state, and local regulations.
8

9 **2-17.3(2)B Control of Waste Material**

10
11 Vehicles used by the Contractor to transport waste materials shall be properly designed,
12 equipped, and maintained to prevent the loss of materials during transport. The
13 following requirements shall be met for all vehicles transporting waste materials from the
14 site:

- 15
16 1. No soil from the site shall adhere to the outside of the surface of the
17 vehicle (including tires and undercarriage).
18
19 2. No liquids shall be leaking or dripping from the vehicles.
20
21 3. Any and all waste materials shall be covered with tarpaulin or otherwise
22 completely enclosed to prevent loss of materials from the vehicle during
23 transport.
24

25 If leaking or dripping from transport vehicles occurs, the Contracting Agency may direct
26 the Contractor to use liners or other means to prevent dripping and leaking. The
27 Contractor shall implement such measures, as directed by the Contracting Agency, at
28 the Contractor's sole expense.
29

30 **2-17.3(2)C Street Sweeping**

31
32 The Contractor shall sweep those streets within the project when truck traffic carries soil
33 from the site into the street. Street sweeping shall be conducted in such a way as to not
34 generate visible dust. Material collected from street sweeping shall be disposed of in a
35 legal manner at an off-site location and be included in the street cleaning bid item.
36

37 **2-17.3(2)D Transportation and Shipping Requirements**

38
39 The Contractor shall be responsible for obtaining permits and authorizations necessary
40 to use the selected haul routes. The Contractor shall use United States DOT
41 regulations, 49 CFR 172.101 to identify proper shipping names for each hazardous
42 material (including Dangerous Waste) to be shipped off site. Proper shipping names
43 shall be submitted to the Contracting Agency in the form of draft shipping documents for
44 review and comment.
45

46 The Contractor shall ensure that each shipment of material sent off site is accompanied
47 by the appropriate shipping documents. The Contractor shall prepare a bill of lading for
48 each shipment of regulated material which does not require a hazardous waste manifest.
49 The bill of lading shall satisfy the requirements of United States DOT regulations, 49
50 CFR 172 Subpart C and any applicable state or local law or regulation, and shall be
51 submitted to the Contracting Agency for review. The Contractor shall be responsible for

1 completing the shipping documents and obtaining the signatures of the Contracting
2 Agency as needed.

3
4 **2-17.3(3) Off-site Treatment and Disposal**

5
6 The Contractor shall provide documentation of legal disposition including trip tickets and
7 Certificates of Disposal.

8
9 **2-17.4 Measurement**

10
11 No specific measurement shall apply to the lump sum item of Site Health and Safety
12 Plan, Site Health and Safety Officer, and Soil Management Plan.

13
14 **2-17.5 Payment**

15
16 Payment will be made in accordance with Section 1-04.1 for each of the following Bid
17 Items that are included in the Proposal.

18
19 "Site Health and Safety Plan", per lump sum.

20
21 The cost for Site Health and Safety officer shall be included in the unit Contract price for
22 "Site Health and Safety Plan".

23
24 "Soil Management Plan", per lump sum.

25
26 Health and safety training, safety equipment and practices, dust control, efficiency
27 losses to other Contract items caused by handling contaminated materials, and other
28 Work required to comply with this specification not specifically identified in a Bid item
29 shall be considered incidental to the work to comply with this Section and all costs
30 therefore shall be included in the Contract prices for the payment items involved and
31 included in the Proposal.

32
33
34 **END OF SECTION**
35
36

1 **3-04 ACCEPTANCE OF AGGREGATE**
2 **(April 1, 2012 Tacoma GSP)**

3
4 **3-04.1 Description**

5 *The first and third paragraphs are deleted.*

6
7 *The fourth paragraph is revised to read:*

8
9 Nonstatistical evaluation will be used for the acceptance of aggregate materials.

10
11 **3-04.3(1) General**

12 *The first sentence is revised to read:*

13
14 For the purpose of acceptance sampling and testing, all test results obtained for a
15 material type will be evaluated collectively.

16
17 **3-04.3(4) Testing Results**

18 *This section is replaced with the following:*

19
20 The results of all acceptance testing will be provided by the City's Project Engineer
21 within 3 working day of testing.

22
23 **3-04.3(6) Statistical Evaluation**

24 *This section is deleted:*

25
26
27
28 **END OF SECTION**
29
30

1 **4-04 BALLAST AND CRUSHED SURFACING**

2 **(*****)**

3
4 **4-04.2 Materials**

5 *This section is supplemented with the following:*

6
7 The Contractor is encouraged to use recycled material, such as "Recycled Concrete
8 Aggregate" in place of crushed stone according to these Special Provisions and Section
9 9-03.21. Recycled Concrete Aggregate shall not be used in utility trenches.

10
11 When Recycled Concrete Aggregate is exposed in inclement weather it may produce
12 runoff with pH levels above those accepted by the Washington State Department of
13 Ecology and the current City of Tacoma Surface Water Manual. The contractor **shall**
14 protect Recycled Concrete Aggregate from precipitation during inclement weather
15 events.

16
17 **4-04.3 Construction Requirements**

18 *This section is supplemented with the following:*

19
20 Where recycled material is used in place of any specified material in this section, the
21 construction requirements shall apply as they are for the replaced material.

22
23 **4-04.5 Payment**

24 *This section is supplemented with the following:*

25 **(*****)**

26 The quantities in the Proposal have been estimated to provide a common basis of Bid
27 and are based on an estimated existing thickness of concrete at every project work
28 location. Refer to Special Provisions 2-06, Subgrade Preparation; and 1-04.6, Variation
29 of Quantities.

30
31 All costs for labor, equipment, and materials required to furnish, place, and compact
32 Crushed Surfacing, Ballast or any crushed stone shall be included in the unit Contract
33 price for the material.

34
35 Where Recycled Material is used in place of any specified material in this section,
36 measurement and payment shall apply as they are for the replaced material, according
37 to the Proposal.

38
39
40 **END OF SECTION**
41
42

1 **5-04 HOT MIX ASPHALT**

2
3 **5-04.3 Construction Requirements**

4
5 **5-04.3(3) Hot Mix Asphalt Pavers**
6 **(June 16, 2016 Tacoma GSP)**

7 *The second paragraph is deleted.*

8
9 **5-04.3(3)A Material Transfer Device/Vehicle**
10 **(June 16, 2016 Tacoma GSP)**

11 *The first paragraph is revised to read:*

12
13 A Material Transfer Device/Vehicle (MTD/V) shall not be used unless specific paving
14 areas are specified below. A MTD/V shall only be used according to this special
15 provision for the following paving areas:

16
17 None

18
19 **5-04.3(5)E Pavement Repair**
20 **(June 16, 2016 Tacoma GSP)**

21 *This section is revised to read:*

22
23 Pavement repair shall be in accordance with the City of Tacoma Right-of-Way
24 Restoration Policy found at
25 <https://www.cityoftacoma.org/cms/one.aspx?portalId=169&pageId=134091>.

26
27 Pavement repair consists of asphalt concrete sawcut, removing asphalt concrete
28 pavement, crushed surfacing and subgrade, and installing Construction Geotextile for
29 Separation, placing crushed surfacing top course over the Construction Geotextile, and
30 HMA in accordance with the Contract or as directed by the Engineer.

31
32 Pavement repair excavation may also be performed by the use of a milling machine of a
33 type that has operated successfully on work comparable with that to be done under the
34 Contract and shall be approved by the Engineer prior to use. If a milling machine is used
35 for excavation, the excavation shall be as directed by the Engineer.

36
37 In all types of excavation, after the removal of the asphalt, the base material will be
38 evaluated by the Engineer to determine if it is suitable. If the base is determined not to
39 be suitable, the Contractor shall remove the base material and restore the sub-grade in
40 accordance with Section 2-06 and the Plans, regardless of the method used for
41 excavation.

42
43 Payment for pavement repair shall be by the unit Bid prices according to the Contract for
44 all materials, labor, and equipment required to complete the pavement repair. Items not
45 included in the Proposal shall be paid for according to Section 1-04.1(2).

46
47 **5-04.3(7)A Mix Design**
48

1 **5-04.3(7)A1 General**

2 **(June 16, 2016 Tacoma GSP)**

3 *This section is supplemented with the following:*

4
5 The Contractor shall determine anti-strip requirements for HMA and provide laboratory
6 test data for anti-stripping.

7
8 The Contractor shall provide a mix design based upon 3 million ESAL's.

9
10 **5-04.3(7)A2 Statistical or Nonstatistical Evaluation**

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

12
13 **5-04.3(7)A2 Nonstatistical Evaluation**

14 **(January 16, 2014 APWA GSP)**

15
16 Mix designs for HMA accepted by Nonstatistical Evaluation shall;

- 17 • Be submitted to the Project Engineer on WSDOT Form 350-042
- 18 • Have the aggregate structure and asphalt binder content determined in
19 accordance with WSDOT Standard Operating Procedure 732 and meet the
20 requirements of Sections 9-03.8(2) and 9-03.8(6).
- 21 • Have anti-strip requirements, if any, for the proposed mix design determined in
22 accordance with WSDOT Test Method T 718 or based on historic anti-strip and
23 aggregate source compatibility from WSDOT lab testing. Anti-strip evaluation of
24 HMA mix designs utilized that include RAP will be completed without the
25 inclusion of the RAP.

26
27 At or prior to the preconstruction meeting, the Contractor shall provide one of the
28 following mix design verification certifications for Contracting Agency review;

- 29
30 • The proposed mix design indicated on a WSDOT mix design/anti-strip report that
31 is within one year of the approval date
- 32 • The proposed HMA mix design submittal (Form 350-042) with the seal and
33 certification (stamp & signature) of a valid licensed Washington State
34 Professional Engineer.
- 35 • The proposed mix design by a qualified City or County laboratory mix design
36 report that is within one year of the approval date.

37
38 The mix design will be performed by a lab accredited by a national authority such as
39 Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The
40 Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO
41 Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO
42 Material Reference Laboratory (AMRL) program.

43
44 At the discretion of the Engineer, agencies may accept mix designs verified beyond the
45 one-year verification period with a certification from the Contractor that the materials and
46 sources are the same as those shown on the original mix design.

47
48 **5-04.3(8)A Acceptance Sampling and Testing – HMA Mixture**

1 **5-04.3(8)A1 General**

2 **(January 16, 2014 APWA GSP)**

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

4
5 Acceptance of HMA shall be as defined under nonstatistical or commercial evaluation.

6
7 Nonstatistical evaluation will be used for all HMA not designated as Commercial HMA in
8 the Contract documents.

9
10 The mix design will be the initial JMF for the class of HMA. The Contractor may request
11 a change in the JMF. Any adjustments to the JMF will require the approval of the Project
12 Engineer and must be made in accordance with Section 9-03.8(7).

13
14 Commercial evaluation may be used for Commercial HMA and for other classes of HMA
15 in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails,
16 gores, prelevel, and pavement repair. Other nonstructural applications of HMA accepted
17 by commercial evaluation shall be as approved by the Project Engineer. Sampling and
18 testing of HMA accepted by commercial evaluation will be at the option of the Project
19 Engineer. Commercial HMA can be accepted by a Contractor certificate of compliance
20 letter stating the material meets the HMA requirements defined in the Contract.

21
22 **5-04.3(8)A4 Definition of Sampling Lot and Sublot**

23 **(January 16, 2014 APWA GSP)**

24 *Section 5-04.3(8)A4 is supplemented with the following:*

25
26 For HMA in a structural application, sampling and testing for total project quantities less
27 than 400 tons is at the discretion of the engineer. For HMA used in a structural
28 application and with a total project quantity less than 800 tons but more than 400 tons, a
29 minimum of one acceptance test shall be performed:

- 30 i. If test results are found to be within specification requirements, additional testing
31 will be at the engineer's discretion.
32 ii. If test results are found not to be within specification requirements, additional
33 testing as needed to determine a CPF shall be performed.

34
35 **5-04.3(8)A5 Test Results**

36 **(January 16, 2014 APWA GSP)**

37 *The first paragraph of this section is deleted.*

38
39 **5-04.3(8)A6 Test Methods**

40 **(June 16, 2016 Tacoma GSP)**

41
42 *This section is revised to read:*

43
44 Testing of HMA for compliance of Va will be at the option of the Contracting Agency, and
45 will be by WSDOT Standard Operating Procedure (SOP) 731. Testing for compliance of
46 asphalt binder content will be by FOP for AASHTO T 308. Testing for compliance of
47 gradation will be by FOP for WAQTC T 27/T 11, WSDOT Materials Manual.

48
49 **5-04.3(10) Compaction**

1 **5-04.3(10)B1 General**

2 **(June 16, 2016 Tacoma GSP)**

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

4
5 The specified level of density attained will be determined by the non-statistical evaluation
6 of nuclear density tests taken on the day the mix is placed (after completion of the finish
7 rolling).

8
9 *The sixth paragraph and subsequent table are deleted.*

10
11 *This section is supplemented with the following:*

12
13 Compaction tests will be performed at a minimum of 5 various locations, as determined
14 by the Engineer, for each 400 tons placed. The locations will be determined by the
15 stratified random sampling procedure conforming to WSDOT Test Method T 716. For an
16 area in progress with a CPF less than 0.75, a new compaction sequence will begin at
17 the Contractor's request after the Project Engineer is satisfied that material conforming
18 to the Specifications can be produced. The Compaction Test Procedures will be
19 provided to the Contractor by the Contracting Agency at the Pre-Construction
20 Conference or a Pre-Paving Meeting, prior to the placement of HMA material on site.

21
22 Cores may be used as an alternate to the nuclear density gauge tests. When cores are
23 taken by the Engineer at the request of the Contractor, the request shall be made by
24 noon of the first working day following placement of the mix. The Engineer shall be
25 reimbursed for the coring expenses.

26
27 At the start of paving, if requested by the Contractor, a compaction test section shall be
28 constructed as directed by the Engineer to determine the compactibility of the mix
29 design. Compactibility shall be based on the ability of the mix to attain the specified
30 minimum density (91 percent of the maximum density determined by WSDOT FOP for
31 AASHTO T 729). Following determination of compactibility, the Contractor is responsible
32 for the control of the compaction effort. If the Contractor does not request a test section,
33 the mix will be considered compactible.

34
35 HMA for preleveling shall be compacted to the satisfaction of the Engineer.

36
37 **5-04.3(10)B2 Cyclic Density**

38 **(June 16, 2016 Tacoma GSP)**

39 *This section is deleted.*

40
41 **5-04.3(10)B4 Test Results**

42 **(June 16, 2016 Tacoma GSP)**

43 *The first paragraph is revised to read:*

44
45 The Engineer will inform the Contractor of field compaction test results as work is being
46 performed. Formal Test Report(s) will be provided to the Contractor within 3 Working 47
47 Days.

1 **5-04.3(17) Paving Under Traffic**
2 **(June 16, 2016 Tacoma GSP)**

3 *The second paragraph is supplemented with the following:*

4
5 No traffic shall be allowed on any newly placed pavement without the approval of the
6 Engineer.

7
8 **5-04.3(20) Anti Stripping Additive**
9 **(June 16, 2016 Tacoma GSP)**

10 *This section is revised to read as follows:*

11
12 The asphalt supplier shall add anti-stripping additive to the liquid asphalt prior to
13 shipment to the asphalt mixing plant. The Contractor shall submit the anti-stripping
14 additive type and amount as designated in the WSDOT mix design/anti-strip evaluation
15 report. The Contractor shall submit the anti-stripping additive amount and the
16 manufacturer's certification, together with the HMA mix design submittal in accordance
17 with Section 5-04.3(7)A. Paving shall not begin before the anti-stripping additive
18 submittal is approved by the Engineer.

19
20 **5-04.4 Measurement**
21 **(April 1, 2018 Tacoma GSP)**

22 *The first paragraph is revised to read:*

23
24 HMA Cl. ____ PG ____, PHMA, HMA for ____ Cl. ____ PG ____, and Commercial HMA will be
25 measured by the ton in accordance with Section 1-09.2, with no deduction being made
26 for the weight of asphalt binder, blending sand, mineral filler, anti-stripping additive, or
27 any other component of the mixture; and the measurement shall include asphalt wedge
28 curbs, and thickened edges in accordance with the Plans or as directed by the Engineer.
29 If the Contractor elects to remove and replace mix as allowed in Section 5-04.3(11), the
30 material removed will not be measured.

31
32 *The second paragraph is revised to read:*

33
34 No specific unit of measure will apply to roadway cores, which shall be included in the
35 measurements for the HMA items that are included in the Proposal.

36
37 *This section is supplemented with the following:*

38
39 HMA for Approach Cl. ____ PG ____ shall be measured per square yard of finished
40 driveway and approach.

41
42 No specific unit of measure will apply to Anti-Stripping Additive, which shall be included
43 in the measurements for the HMA items that are included in the Proposal.

44
45 **5-04.5 Payment**
46 **(April 1, 2018 Tacoma GSP)**

47 *Pay items for "Job Mix Compliance Price Adjustment" and "Compaction Price*
48 *Adjustment" are deleted.*

1 *The following pay items for HMA are revised to read:*

2
3 "HMA Cl. ____ PG ____", per ton.

4 "HMA for ____ Cl. ____ PG ____", per ton.

5
6 The unit Contract price per ton for "HMA Cl. ____ PG ____", and "HMA for ____ Cl. ____ PG
7 ____" shall be full payment for all costs incurred to carry out the requirements of Section 5-
8 04, including coring and testing, and shall include anti-stripping additive, asphalt wedge
9 curbs, thickened edges, curb drains, and connection to existing drains in accordance
10 with the Contract. Any costs that are already included in other Bid items in the Proposal
11 shall not be included in the unit Contract prices per ton for these HMA Bid items.

12
13 *This section is supplemented with the following:*

14
15 "Temporary Pavement Patch", per ton.

16
17 The unit Contract price for "Temporary Pavement Patch" shall be full pay for all labor
18 equipment, and materials required to furnish and install, maintain, and remove and
19 dispose of the temporary patch.

20
21 Temporary pavement patches placed shall be HMA Cl. ½" PG 58H-22.

22
23 **5-04.5(1) Quality Assurance Price Adjustments**

24 *This section is deleted.*

25
26
27 **END OF SECTION**
28
29
30

1 **5-05 CEMENT CONCRETE PAVEMENT**

2 **(*****)**

3
4 **5-05.1 Description**

5 *This section is supplemented with the following:*

6
7 All concrete pavement restoration shall be performed in accordance with the City of
8 Tacoma's Right-of-Way Restoration Policy found at
9 <https://www.cityoftacoma.org/cms/one.aspx?portalId=169&pageId=134091>.

10 The Work shall consist of concrete road construction of single or several concrete
11 pavement panels to replace damaged existing concrete road panels. The Thickness
12 shall match the adjoining concrete pavement.

13
14 **5-05.3 Construction Requirements**

15 *This section is supplemented with the following:*

16 **(*****)**

17
18 Concrete pavement typical details are included in Appendix A, which shall override the
19 Standard Plans. Appendix B also includes tables listing all the Work locations.

20
21 The Contractor shall construct all concrete pavement replacement with Class 4000, high
22 early strength concrete, and shall match the thickness of the existing concrete road
23 panels adjoining the replacement panel(s). If the existing thickness is less than 6-inches
24 the new concrete panels shall be constructed as directed by the Engineer. The existing
25 thickness is estimated to be 7-inches on average to set a common basis of bid. See
26 payment section below.

27
28 Project work locations are listed in the tables in Appendix B of these Provisions. Each
29 Work location shall be marked in the field by the Engineer, and the Engineer and the
30 Contractor shall discuss the Work on-site before the start of pavement removal. The
31 intent in the Work is to pour the new concrete road panels onto the existing subgrade,
32 subject to Section 2-06, and match the adjoining concrete panels in thickness.

33
34 At each separate Work location, the Contractor shall restore the pavement according to
35 Plans, Provisions, and Specifications within two working days from the start of pavement
36 removal at the respective location. The intent is to have one work day for removal and
37 subgrade preparation, and one day for concrete paving at each location.

38
39 Schedule exceptions may be made for subgrade repair according to Section 2-06, Field
40 Design according to Section 8-14, or difficult traffic conditions, contamination sampling
41 and testing (See Sections 2-03 and 2-17), or other unforeseen conditions, all as
42 approved by the Engineer. In these cases, a temporary road surface shall be
43 constructed as directed by the Engineer in accordance with Section 2-06 and 5-04.

44
45 Refer also to the Provision for Construction under Traffic, Section 1-07.23, and Traffic
46 Control Section 1-10.

1 **5-05.3(1) Concrete Mix Design for Paving**

2 *The sixth paragraph is supplemented with the following:*

3
4 The submittal for the concrete mix design shall provide the following: the date, the
5 amount of materials (i.e. cement, sand, aggregates, water), the type and amount of each
6 admixture, and the designated 28-day compressive strength specific to the mix design
7 being submitted. The design compressive strength shall be a minimum of **4000 psi**.

8
9 (*****)

10 In addition, the concrete mix design shall be a “high early strength”, and shall attain a
11 minimum compressive strength of 2500 psi in 3 days, at which time the drive lane may
12 be opened to traffic. Test cylinders shall be tested for compressive strength at 2 and 3
13 days after pouring concrete.

14
15 **5-05.3(4)A Acceptance of Portland Cement Concrete Pavement**

16 *This section is supplemented with the following:*

17
18 Acceptance of concrete will be on a non-statistical acceptance only.

19
20 *The first, second, third and fourth paragraphs are deleted.*

21
22 **5-05.3(8) Joints**

23 *The second paragraph is revised to read:*

24
25 The Contractor shall submit a concrete panel jointing plan in accordance with the Plans
26 and these Specifications. When a concrete panel jointing plan is included in the Plans,
27 the Contractor may adopt or submit a revised jointing plan in accordance with Standard
28 Plans and the Specifications at the Contractor’s own expense. The Contractor’s jointing
29 plan shall be approved in writing by the Engineer before the start of pavement removal.
30 Jointing plans are not required for single panel replacement.

31
32 When new pavement abuts existing pavement, the locations of the joints in the new
33 pavement shall match with the joints in the existing pavement unless otherwise
34 approved by the Engineer.

35
36 The contractor shall install pavement isolation joints at sewer structures in accordance
37 with WSDOT Standard Plan A-40.15-00 PCC Pavement Isolation Joints.

38
39 **5-05.3(10) Tie Bars and Corrosion Resistant Dowel Bars**

40
41 *This section is revised to read:*

42
43 The Contractor shall NOT install tie bars and dowel bars. All concrete pavement joints
44 shall be constructed to match existing adjacent panels. Also refer to typical concrete
45 pavement details, Appendix A.

46
47 **5-05.3(11) Finishing**

48
49 *The third paragraph is revised to read:*

1 In advance of curing operations, the pavement shall receive an initial texturing followed
2 by final finishing. Initial texturing shall be performed with a burlap drag or broom device,
3 creating striations in the same orientation as the final finish. The concrete roadway
4 surface shall be finished with transverse tining. Where integral concrete curbs are
5 constructed, the roadway surface finish shall end 12 inches from the flowline.
6

7 *The fourth paragraph is revised to read:*
8

9 Burlap drags, brooms and tine devices may be installed on self-propelled equipment
10 having external alignment control. When texturing the pavement with burlap, the area of
11 burlap in contact with the pavement shall be maintained constant at all times. Broom
12 and tine devices shall be provided with positive elevation control. Downward pressure
13 on pavement surface shall be maintained at all times during texturing so as to achieve
14 uniform texturing without measurable variations in pavement profile. If self-propelled
15 texturing machines are used, these shall be operated so that travel speed during
16 texturing is maintained constant. Failure of the texturing equipment to perform according
17 to this section shall constitute cause for stopping placement of concrete until the
18 equipment deficiency or malfunction is corrected.
19

20 *The seventh paragraph is revised to read:*
21

22 **Test Panel:**

23 At the start of concrete pavement construction, the Contractor shall first finish a textured
24 concrete test panel and the Engineer shall give approval of the achieved finish according
25 to this section prior to further concrete pavement construction. If the test panel is
26 rejected by the Engineer, the Contractor shall remove and replace the test panel at no
27 additional cost to the Contracting Agency. The Contractor can designate one of the
28 project panels as a test panel or create a sacrificial test panel on site of at least four feet
29 by eight feet.
30

31 Project panels not meeting the characteristics of the test panel shall be removed and
32 replaced at no additional cost to the Contracting Agency.
33

34 *The eighth through tenth paragraphs are deleted.*
35

36 **5-05.3(14) Cold Weather Work**

37 *This section is supplemented with the following:*
38

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

- 41 • Engineer shall be notified at least 24 hours prior to placement of concrete.
- 42 • All concrete placement shall be completed no later than 2:00 p.m. each
- 43 day.
- 44 • Where forms have been placed and the subgrade has been subjected to
- 45 frost, no concrete shall be placed until the ground is completely thawed.
- 46 At that time, the forms shall be adjusted and subgrade repaired as
- 47 determined by the Engineer.
48
49
50

1 **5-05.4 Measurement**

2 *This section is revised to read:*

3
4 Measurement for cement concrete pavement shall be by the square yard for the
5 pavement completed and accepted according to Section 5-05 and the Plans. No
6 deduction will be made for castings in pavement.

7
8 **5-05.5 Payment**

9 *This section is revised to read:*

10
11 Payment will be made in accordance with Section 1-04.1.

12 (*****)

13 "Cement Conc. Pavement, 7-Inch Section", per square yard.

14
15 The unit Contract price per square yard for "Cement Conc. Pavement, 7-Inch Section"
16 shall be full payment for all costs incurred to construct the concrete road panel(s) with an
17 average thickness from 6-inches to 8-inches according to the requirements of Section 5-
18 05 and the Plans, and shall include construction and sealing of joints. If the new
19 concrete panel(s) shall be thicker than 8-inches to match the existing concrete thickness,
20 then the Contract unit price per square yard shall be prorated per inch thickness to
21 compensate for the increased thickness.

22
23 Integral curbs shall be included in the Contract price per square yard for "Cement Conc.
24 Pavement, 7-Inch Section".

25
26 The cost for the test panel shall be included in the Contract price for "Cement Conc.
27 Pavement, 7-Inch Section".

28
29
30 **END OF SECTION**
31

6-02 CONCRETE STRUCTURES

(*****)

6-02.3(1) Classification of Structural Concrete

This section is supplemented with the following:

Sidewalks, Curb Ramps, Driveway Entrances, Curbs and Gutters shall be constructed with Concrete Class 3000 at a minimum.

6-02.3(6)A2 Cold Weather Protection

This section is revised to read:

This Specification applies when the weather forecast on the day of concrete placement predicts air temperatures below 35°F at any time during the 7 days following placement. The weather forecast is based on predictions from the Western Region Headquarters of the National Weather Service. This forecast can be found at www.wrh.noaa.gov.

The temperature of the concrete shall be maintained above 40°F during the entire curing period or 7 days, whichever is greater. Prior to placing concrete in cold weather, the Contractor shall provide a written procedure for cold weather concreting to the Engineer. The procedure shall detail how the Contractor will adequately cure the concrete and prevent the concrete temperature from falling below 35°F. Extra protection shall be provided for areas especially vulnerable to freezing (such as exposed top surfaces, corners and edges, thin sections, and concrete placed into steel forms). Concrete placement will only be allowed if the Contractor's cold weather protection plan has been accepted by the Engineer.

The Contractor shall not mix nor place concrete while the air temperature is below 35°F, unless the water or aggregates (or both) are heated to at least 70°F. The aggregate shall not exceed 150°F. If the water is heated to more than 150°F, it shall be mixed with the aggregates before the cement is added. Any equipment and methods shall heat the materials evenly. Concrete placed in shafts and piles is exempt from such preheating requirements.

The Contractor may warm stockpiled aggregates with dry heat or steam, but not by applying flame directly or under sheet metal. If the aggregates are in bins, steam or water coils or other heating methods may be used if aggregate quality is not affected. Live steam heating is not permitted on or through aggregates in bins. If using dry heat, the Contractor shall increase mixing time enough to permit the aggregates to absorb moisture.

Starting immediately after placement, the concrete temperatures shall be maintained at or above 40°F and the relative humidity shall be maintained above 80 percent. These conditions shall be maintained for a minimum of 7 days or for the cure period required by Section 6-02.3(11), whichever is longer. During this time, if the temperature of the concrete falls below 40°F no curing time is awarded for that day. Should the Contractor fail to adequately protect the concrete and the temperature of the concrete falls below 35°F during curing, the Engineer may reject it.

1 The Contractor is solely responsible for protecting concrete from inclement weather
2 during the entire curing period. Permission given by the Engineer to place concrete
3 during cold weather will in no way ensure acceptance of the Work by the Contracting
4 Agency. Should the concrete placed under such conditions prove unsatisfactory in any
5 way, the Engineer shall still have the right to reject the Work although the plan and the
6 Work were carried out with the Engineer's permission.

7
8
9 **END OF SECTION**
10

7-02 CULVERTS

(*****)

7-02.1 Description

This section is supplemented with the following:

A culvert pipe with beveled ends shall be placed under curb ramps to ensure existing drainage where indicated in the plans or as directed by the Engineer in the field.

Where shown on the plans culvert pipe shall be placed under the roadway to connect existing ditches and maintain existing drainage.

Where shown on the plans or directed by the Engineer in the field culvert pipe shall be placed to connect existing ditches to drainage structures.

7-02.2 Materials

This section is supplemented with the following:

Ductile Iron Sewer Pipe
9-05.13

All culvert pipe shall have a smooth interior wall.

7-02.3 Construction Requirements

This section is supplemented with the following:

The culvert pipe shall be placed under the ramp to maintain existing drainage. The pipe shall extend on both sides a minimum of two feet from the edge of the ramp and be beveled on each end. Quarry Spalls shall be placed at each end of the pipe or as directed by the Engineer.

When culvert pipe is placed under the roadway to connect existing drainage ditches the following requirements shall be met unless otherwise directed by the Engineer:

1. The crown of the pipe shall be below the base course for the roadway.
2. The pipe shall have a minimum slope from inlet to outlet of 0.3%.
3. Both the inlet and outlet ends shall be beveled.
4. Pipe Zone Bedding shall be placed in accordance with City of Tacoma Standard Plan SU-16.
5. Quarry Spalls shall be placed at each end of the pipe or as directed by the Engineer.

After placement of any culvert pipe the Engineer may direct the Contractor to reshape and/or excavate a portion of the existing ditch beyond the end of the pipe to maintain positive drainage, this work shall be included in the lump sum bid item "Site Restoration" in accordance with Section 8-02.

When culvert pipe is placed to connect existing ditches to drainage structures the ditch shall be shaped and the invert elevation at the inlet of the pipe placed such that the invert is at a low point of the ditch. Quarry Spalls and a Trash Rack shall be placed at the inlet of the pipe or as directed by the Engineer.

Trash Rack Shall be as shown on the plans and constructed per the special details.

1 **7-02.4 Measurement**

2 *This section is supplemented with the following:*

3
4 Trash Rack ____ In. Diam. will be measured per each.

5
6 **7-02.5 Payment**

7 *This section is supplemented with the following:*

8
9 "D.I. Culvert Pipe, ____-In. Diam." per linear foot.

10
11 The unit contract price for "D.I. Culvert Pipe, ____-In. Diam." per linear foot shall be full
12 pay for all labor, materials, and equipment necessary to install the pipe as shown in the
13 plans and as described in these specifications including, but not limited to, excavation,
14 haul, disposal of extra material, backfill, bedding, and beveling. Quarry Spalls shall be
15 paid in accordance with Section 8-15. Re-grading beyond the ends of the pipe shall be
16 paid in accordance with Section 8-02.

17
18 "Trash Rack ____ In. Diam." per each.

19
20 The unit cost for "Trash Rack ____ In. Diam." shall be full pay to furnish and install a
21 trash rack per the details on the plans.

22
23
24 **END OF SECTION**
25
26

7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

(*****)

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, Standard Plan No. SU-21, Standard Plan No. SU- 22 and Standard Plan No. SU-25. The finished structure shall conform to the requirements of the standard plan for the specific structure.

New sanitary sewer and storm sewer manhole frames and covers for "Adjust Existing Manhole", and new vaned grates for "Adjust Existing Catch Basin" shall be provided by the Contracting Agency. The Contractor shall coordinate with the Contracting Agency for pick-up of the frames, covers, and grates. The Contractor shall arrange pick-up, a minimum of **5 working days** prior, with:

Ryan Welander, Environmental Services Transmission Maintenance Coordinator,
by phone at 253-404-6964 (office), 253.327.4391 (Mobile), or by email at
RWelander@ci.tacoma.wa.us

The pick-up location shall be:

Sewer Treatment Plant
2201 Portland Ave E
Tacoma, WA 98421

When adjusting an existing catch basin the contractor shall clean the structure in accordance with specification 7-07 and shall include all costs in the price for adjustment.

1 Where shown on the plans for water main valve chambers and gas valve chambers to
2 be adjusted to grade, existing valve cans and covers shall be replaced with new
3 castings. The contractor shall install, replace, adjust any valves per City of Tacoma
4 Standard Plan SU-37. New water valve cans and covers for "Adjust Existing Valve
5 Chamber to Grade" will be provided by the Contracting Agency. The Contractor shall
6 coordinate with the Contracting Agency for pick-up of the castings. The contractor shall
7 arrange pick-up, a minimum of **5 working days** prior, with:

8
9 Geff Yotter, Water Distribution Operations Manager,
10 By phone at 253-502-8253 (office) or by email at GYotter2@ci.tacoma.wa.us
11

12 The pick-up location shall be:

13
14 Water Operations Distribution Building
15 3506 South 35th Street
16 Tacoma, WA 98409
17

18 **7-05.3(3) Connections to Existing Manholes**

19 *The first sentence is revised to read:*
20

21 The Contractor shall inspect the existing manholes in the field to verify invert elevations
22 and the scope of work necessary to make the connection(s) prior to construction.
23

24 *This new section is added:*
25

26 **7-05.3(A) Reconnect Existing Sewer Pipe to New Structure**

27 **(*****)**
28

29 The Contractor shall reconnect existing sewer pipes to new structures where shown on
30 the plans. The Contractor shall locate the existing pipe and place the new structure in
31 line with the existing pipe. The invert elevation shall be field determined.
32

33 The Contractor shall cut the existing sewer pipe within 5 feet of the new structure and
34 work within the pavement removal limits according to the plans. The Contractor shall
35 connect the existing pipe to the new structure using the same pipe material and size if
36 possible; or use a similar interior size PVC, RCP, or DI pipe depending on pipe cover
37 and connection options with appropriate pipe adaptors. Submit manufacturer's
38 recommendations.
39

40 Rigid Couplings, manufactured by Romac Industries, Inc., or Engineer approved equal,
41 shall be used at any pipe joint in which bell and spigot or fused joints are not used.
42 Flexible couplings are not permitted, except for side sewer installation.
43

44 PVC pipe shall not be used with less than 3 feet of cover to finished grade, and only DI
45 pipe shall be used with less than 1.5 feet of cover.
46

47 **7-05.4 Measurement**

48 *The sixth paragraph is revised to read:*
49

50 Connections to existing structures will be measured per each.
51

1 *This section is supplemented with the following:*

2
3 Reconnecting existing sewer pipes to new manhole structures will be measured per
4 each.

5
6 **7-05.5 Payment**

7 *The first paragraph is supplemented with the following:*

8
9 The unit Contract price for "Catch Basin____" shall be full pay for all work required to
10 furnish and install the new catch basin to finished grade, including, but not limited to,
11 excavating for, furnishing backfill, compaction of backfill, connection of new pipe(s),
12 frame, cover, as applicable per Standard Plans.

13
14 *The pay item for Connection to Drainage Structure is revised to read:*

15
16 "Connect New Sewer Pipe to Existing Structure", per each

17
18 The unit Contract price per each for "Connect New Sewer Pipe to Existing Structure"
19 shall include connecting new sewer pipes of ranging in diameter from 6-inch to 12-inch.

20
21 *This section is supplemented with the following:*

22
23 "Reconnect Existing Sewer Pipe to New Structure", per each.

24
25 The unit Contract price per each shall be full pay for all labor, equipment and materials
26 necessary to reconnect the existing sewer pipe to the new structure as specified in
27 Section 7-05.3. The unit contract price shall include sizes from 6-inch diameter to 12-
28 inch diameter.

29
30 "Adjust Existing Manhole", per each

31
32 The unit contract price per each for "Adjust Existing Manhole" shall be full pay for all
33 costs associated with adjusting the frame and cover to finished grade, including but not
34 limited to, excavating, furnish and place backfill, hauling and installing a new frame and
35 cover, compacting, surfacing, and restoration.

36
37 "Adjust Existing Catch Basin", per each

38
39 The unit contract price per each for "Adjust Existing Catch Basin" shall be full pay for all
40 costs associated with adjusting the frame and grate to finished grade, including but not
41 limited to, excavating, furnish and place backfill, hauling and installing a new frame and
42 grate, compacting, surfacing, and restoration.

43
44 "Adjust Existing Valve Chamber to Grade", per each

45
46 The unit Contract price per each for "Adjust Existing Valve Chamber to Grade" shall be
47 full pay for all costs associated with the adjusting the valve chamber to finished grade,
48 including but not limited to, excavating, furnish and place backfill, compacting, surfacing,
49 and restoration.

50
51 **END OF SECTION**

1 **7-07 CLEANING EXISTING DRAINAGE STRUCTURES**
2 **(March 23, 2010 Tacoma GSP)**
3

4 **7-07.3 Construction Requirements**

5 *Item three of paragraph two is revised to read:*
6

- 7 3. If sediment and water from structures does not meet the conditions described in
8 1 or 2 above, the Contractor shall collect and dispose of all water used and all
9 debris generated in cleaning operations. No cleaning water or debris shall be
10 flushed downstream beyond the limits of the work.
11

12 **END OF SECTION**
13
14
15
16

1 **7-08 GENERAL PIPE INSTALLATION REQUIREMENTS**

2 **(*****)**

3
4 **7-08.3 Construction Requirements**

5 *This section is supplemented with the following:*

6
7 Material excavated in areas labeled on the Plans as contaminated shall be hauled to LRI
8 Landfill, located at 30919 Meridian Street East, Graham, WA or an approved licensed
9 solid waste disposal facility per Section 2-17 and 7-17 of these Specifications.

10
11 **7-08.3(1)A Trenches**

12 *The tenth paragraph of this section is deleted. All dewatering requirements are found in*
13 *section 8-01.3(1)C.*

14
15 **7-08.3(1)C Bedding the Pipe**

16 *This section is supplemented with the following:*

17
18 Pipe bedding for sanitary and storm sewers shall be in accordance with City of Tacoma
19 Standard Plan No. SU-16.

20
21 **7-08.3(2)F Plugs and Connections**

22 *This section is supplemented with the following:*

23
24 Rigid Couplings, manufactured by Romac Industries, Inc., or Engineer approved equal,
25 shall be used at any pipe joint in which bell and spigot or fused joints are not
26 used. Flexible couplings are not permitted, except for side sewer installation.

27
28 **7-08.3(2)G Jointing of Dissimilar Pipe**

29 *This section is revised to read:*

30
31 Dissimilar pipe shall be joined by use of rigid couplings manufactured by Romac
32 Industries, Inc., or Engineer approved equal, except for side sewer installation.

33
34 **7-08.3(3) Backfilling**

35 *The second paragraph is revised to read:*

36
37 Pipe zone bedding and trench backfill shall be in accordance with City of Tacoma
38 Standard Plan No. SU-16. (Pipe zone backfill shall meet the requirements of Section 9-
39 03.9(3) for Crushed Surfacing Top Course. Backfill above pipe zone and extra
40 excavation area backfill material shall meet the requirements of Section 9-03.12(2),
41 Gravel Backfill for Walls.) Recycled concrete shall not be used for pipe zone bedding,
42 pipe zone backfill, backfill above pipe zone, and extra excavation area backfill.

43
44 *The fourth paragraph is revised to read:*

45
46 Backfill above the pipe zone shall be accomplished in such a manner that the pipe will
47 not be shifted out of position nor damaged by impact or overloading. If pipe is being
48 placed in a new embankment, backfill above the pipe zone shall be placed in
49 accordance with Section 2-03.3(14)C. If pipe is being placed under existing paved
50 areas, or roadways, backfill above the pipe zone shall be placed in horizontal layers no
51 more than 12-inches thick and compacted to 95-percent maximum density. If pipe is

1 being placed in non-traffic areas, backfill above the pipe zone shall be placed in
2 horizontal layers no more than 12-inches thick and compacted to 85-percent maximum
3 density. All compaction shall be in accordance with the Compaction Control Test of
4 Section 2-03.3(14)D. Material excavated from the trench shall be used for backfill above
5 the pipe zone, except that organic material, frozen lumps, wood, rocks, or pavement
6 chunks larger than 6-inches in maximum dimension shall not be used. Material
7 determined by the Engineer to be unsuitable for backfill at the time of excavation shall be
8 removed and replaced with imported backfill material meeting the requirements of
9 Section 9-03.12(2). Material determined to be suitable for backfill at the time of
10 excavation shall be stockpiled and used for backfill material. If the stockpiled material
11 becomes unsuitable, the Contractor shall furnish suitable material in an amount equal to
12 that, which became unsuitable, at no expense to the Contracting Agency.

13
14 *Section 7-08.3 is supplemented with the following:*

15 **7-08.3(5) Temporary Bypass Pumping**
16

17 It shall be the Contractor's responsibility to maintain operation of the existing storm
18 and/or sanitary sewer systems throughout the duration of the project without any
19 interruption of sewer service. The Contractor shall divert all flows around each segment
20 of the pipe designated for replacement. This diversion shall consist of redirecting flow
21 from an upstream manhole and pumping it to a manhole downstream of the replacement
22 operation. After the pipe replacement work is completed and accepted by the City, flow
23 shall be returned to the reconstructed storm or sanitary sewer. The area affected by the
24 bypass operation shall be fully restored.

25
26 Bypass pumping shall be scheduled for continuous operation with back-up equipment
27 available at all times for periods of maintenance and refueling or failure of the primary
28 bypass pump(s) or diversion system. If the Contractor's operation requires bypass
29 pumping at night, he/she must provide monitoring personnel at all times to ensure the
30 system remains functional.

31
32 Bypass pumping shall be done in such a manner as not to damage private or public
33 property, or create a nuisance or public menace. The pumped sewage or stormwater
34 shall be in enclosed hoses or pipes that are adequately protected from traffic, and shall
35 be redirected into the appropriate sewer system. The discharge of storm water to
36 private property, city streets, sidewalks, sanitary sewer, or any location other than an
37 approved storm sewer is prohibited. The discharge of sewage to private property, city
38 streets, sidewalks, storm sewer, or any location other than an approved sanitary sewer
39 is prohibited. The Contractor shall be liable for all cleanup, damages, and resultant fines
40 should the Contractor's operation cause any backups, overflows, or property damage.
41 The Contractor's bypass operation shall be sized to handle, at a minimum, the full pipe
42 capacity in each subject line removed from service. If flow conditions are greater than
43 full pipe, the Contractor may elect to wait for flow conditions to subside prior to removing
44 the subject line from service. Working days may be adjusted per Specification 1-08.5.
45 Once the Contractor removes a section of line from service he/she is responsible to
46 bypass any and all flow in the system during construction, even in the event the system
47 surcharges and exceeds the full pipe capacity, until the line is returned to service.
48
49
50

1 The Contractor shall submit a Bypass Pumping Plan in accordance with Section 1-05.
2 The Contractor's plan for bypass pumping shall be reviewed by the City before the
3 Contractor will be allowed to commence bypass pumping. The review of the bypassing
4 system and equipment by the Engineer shall in no way relieve the Contractor of his
5 responsibility and public liability.

6
7 The Contractor shall use hard pipe to bypass sewers 12-inches in diameter or greater.
8 The Contractor shall not block any driveways or intersections, but shall bury the pipe to
9 allow continuous access through intersections and driveways.

10
11 The Contractor may use lay-flat hose to bypass storm and sanitary sewers that are less
12 than 12 inches in diameter. The Contractor shall ensure that sewage spills do not occur
13 with the use of lay flat hoses. If sewage spills occur, the Contractor will be required to
14 use hard pipe for all sanitary sewers.

15
16 **7-08.3(6) Abandon Existing Pipe**

17
18 If the pipes to be abandoned are removed and disposed of during construction of the
19 new sewers, all costs for the removal and disposal shall be included in the unit contract
20 price for "Structure Excavation, Class B," at per cubic yard.

21
22
23
24 **END OF SECTION**
25
26

1 **7-17 SANITARY SEWERS**
2 **(March 4, 2014 Tacoma GSP)**

3
4 **7-17.1 Description**

5 *This section is supplemented with the following:*

6
7 All references to sanitary sewer shall also mean storm sewers.

8
9 **7-17.2 Materials**

10 *The first paragraph is revised to read:*

11
12 Pipe materials used for storm and sanitary sewers shall be as shown on plans. All
13 references to PVC shall mean Solid Wall PVC Sewer Pipe. Profile Wall PVC will not be
14 permitted.

15
16 *This section is supplemented with the following:*

17
18 Polyvinyl Chloride (PVC) Pressure Pipe (4-inches and over) 9-30.1(5)A
19

20 **7-17.3 Construction Requirements**

21 *This section is supplemented with the following:*

22
23 Material excavated in areas labeled on the Plans as contaminated shall be hauled to LRI
24 Landfill, located at 30919 Meridian Street East, Graham, WA or an approved licensed
25 solid waste disposal facility per Section 2-17 of these Specifications.
26

27 **7-17.3(2)A General**

28 *The first paragraph is revised to read:*

29
30 Sewers and appurtenances shall be cleaned and tested after backfilling by either
31 exfiltration or low-pressure air method at the option of the Contractor, except where the
32 ground water table is such that the Engineer may require the infiltration test.
33

34 **7-17.3(2)H Television Inspection**

35 *This section is revised to read:*

36
37 **General**

38 The Contractor shall hire a third-party television inspection company to perform
39 television inspection services on all new full segments and partial segments of sanitary
40 and storm sewer mains and side sewers, including the connection point between new
41 and existing pipes, and newly constructed manholes. The television inspection
42 subcontractor shall attend the Pre-Construction Conference to discuss the submittal
43 process and required formatting of videos and databases, as described in this Section.
44

45 **Schedule & Review Requirements**

46 Final pavement restoration shall not occur until the Contracting Agency has approved all
47 applicable pipe segments, video files, and databases within the paving limits.

48
49 The Contractor shall provide the Contracting Agency 72 hours of advance notice so that
50 the Engineer may be present during the inspection if so elected. The inspection video
51 and associated database file for each pipe segment, including all side sewers (if

applicable), shall be submitted to the Contracting Agency for review and approval within ten (10) working days of the installation. The Engineer may take up to three working days to review the files. If more than three working days are required for the Engineer's review of the videos, an extension of time will be considered in accordance with Section 1-08.8. No claim will be allowed for damages and no extension of time will be granted resulting from the rejection of a video or database due to not meeting the technical requirements or construction defects identified in the video.

Inspection and Video Criteria

CCTV inspection work shall be completed by certified National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) trained operator(s) using established PACP coding and observations. Coding and observation results shall be recorded and presented on a per asset basis, from structure to structure. A pipe asset is defined as one continuous pipe from the upstream structure to the downstream structure. Footage shall be recorded with the starting and ending points being the center of the manholes and/or catch basins, with the exception that if partial segments are constructed in this Contract, including side sewers, the inspection only needs to show all new work up to and including the connection to the existing pipe. Inspections shall be performed after the manhole has been channeled and the camera operator shall pan around and record the inside of each manhole and/or catch basin constructed in this project at the start and end of each inspection. The television camera shall have a resolution of 700 lines minimum and shall have a source of illumination attached to it.

The video files shall be recorded and submitted in WMV format and include an unmodified NASSCO-PACP Certified Access Database conducted entirely in digital format with electronic reference to the survey which is intended to be imported into the Contracting Agency's viewing software, GraniteNet. The PACP database must be in MDB format and shall include the Contracting Agency's SAP ID for pipe segments and structures. No other file formats will be accepted unless approved by the Contracting Agency.

All videos and database files shall be submitted via the Internet web-based project management communications tool, e-Builder software. The Contractor shall review each video and database prior to submitting to confirm formatting is correct and no pipe repairs are needed.

The Contractor shall provide video identifying each pipe segment by manhole, catch basin, and pipe segment SAP ID numbers. The inspection shall identify all connections, general conditions of the sewer pipelines, problem areas, location of all connections or problem areas by linear footage, and observations concerning the condition of the pipe joints. The camera system used shall be capable of travelling up to 500 linear feet.

Although newly constructed, the sewers will likely be in service with flow present during inspections. The Contractor shall clean the main within 24 hours of the CCTV inspection. The lens shall remain clean and clear for the duration of the inspection. Should the lens become soiled, or fogged, or otherwise impaired to any degree that impedes the ability to clearly see the condition of the pipe, the inspection shall be halted to clean and clear the lens. No additional compensation will be made for re-inspections required by the Contracting Agency due to soiled, fogged, or otherwise impaired camera lenses.

1 The Contractor shall maintain sufficient light levels within the main to allow for visual
2 inspection of the pipe walls for a minimum of four feet for all pipe sizes. Additionally, the
3 Contractor shall make certain that the light levels are not so bright that visual inspection
4 is impeded.

5
6 The CCTV Inspection shall be a continuous, unedited video and shall include the
7 following information:

- 8 • Date of Inspection
- 9 • Main segment number
- 10 • Upstream and downstream manhole and/or catch basin numbers
- 11 • Current distance along the mainline

12
13 In addition, the Contractor shall perform wastewater side sewer inspections where they
14 exist via a mainline camera with a lateral launching setup. The lateral launch camera
15 shall be capable of extending at least 30 feet from the main into side sewers and shall
16 include an on-screen footage counter. The quality of the side sewer inspection shall
17 meet the same requirements as the mainline camera. The lateral launch camera must
18 be self-leveling and shall also include a sonde transmitter to locate the side sewer in the
19 event of a defect. All side sewer inspections within a given segment shall be
20 incorporated into the same video and database file as the mainline inspection.

21
22 The Contractor shall bear all costs incurred in correcting any deficiencies found during
23 television inspection including the cost of any additional cleaning and television
24 inspection that may be required by the Engineer to verify the correction of said
25 deficiency.

26
27 The Contractor shall be responsible for all costs incurred in any television inspection
28 performed solely for the benefit of the Contractor.

29
30 *Section 7-17.3 is supplemented with the following:*

31
32 **7-17.3(2) Jointing of Dissimilar Pipe**

33
34 Dissimilar pipe shall be joined by use of Strong Back couplings manufactured by Fernco,
35 Inc., or Engineer approved equal.

36
37 **7-17.4 Measurement**

38 *The second paragraph is deleted.*

39
40 *This section is supplemented with the following:*

41
42 Removal and replacement of unsuitable, contaminated and non-contaminated, backfill
43 material will be determined by the cubic yard in place, based on a neat line
44 measurement per this Section and Section 2-09. Any removal and replacement of
45 unsuitable material outside neat line measurement shall be incidental to the Bid item.

46
47 **Horizontal Limits:** The horizontal limits shall be as defined in Section 2-09.4.

48
49 **Longitudinal Limits:** The longitudinal limits shall be as defined in Section 2-09.4.

1 **Lower Limits:** The lower limits shall be the top of the pipe zone as shown on Standard
2 Plan No. SU-16.

3
4 **Upper Limits:** The upper limits shall be the subgrade elevation of the proposed
5 roadway section or pavement patch section.

6
7 All costs associated with the disposal of material located above the upper limits shall be
8 included in the unit contract price for other items of work, unless a proposal item is
9 included for this specific item of work.

10
11 Pipe zone limits are as defined in Standard Plan SU-16.

12 13 **7-17.5 Payment**

14 *The first paragraph is supplemented with the following:*

15
16 "PVC Storm Sewer Pipe ____ In. Diam.", per linear foot.

17
18 For the purpose of providing a common proposal for bidders, the proposal quantities for
19 sewer pipe is based on an anticipated amount of each type of sewer pipe being required.
20 Payment will be made for the actual quantity of sewer pipe installed.

21
22 *The second paragraph is revised to read:*

23
24 The unit Contract price per linear foot for sewer pipe of the kind and size specified shall
25 be full pay for the furnishing, hauling, and assembling in place the complete installation,
26 including but not limited to, disposal of material excavated within the pipe zone,
27 furnishing and installing pipe bedding and backfill material within the pipe zone, and all
28 wyes, tees, special fitting, joint materials, and other appurtenances necessary for the
29 completion of the installation to the required line and grade, unless proposal items are
30 included for these specific items of work. All costs for testing and television inspection
31 shall be included in the unit contract price for sewer pipe.

32
33 *The pay item "Testing Sewer Pipe" is deleted.*

34
35 *The pay item "Removal and Replacement of Unsuitable Material" is revised to read:*

36
37 "Removal and Replacement of Unsuitable Material", per cubic yard.

38
39 The unit Contract price per cubic yard for "Removal and Replacement of Unsuitable
40 Material" shall be full pay for all work required to haul and dispose of the unsuitable
41 material as specified in Section 7-08.3(1)A and the furnishing of suitable backfill material
42 as specified in Section 7-08.3(3).

43
44 For the purpose of providing a common proposal for bidders, the proposal quantity for
45 "Removal and Replacement of Unsuitable Material" is based on removal and
46 replacement of all backfill material. Payment will be made for the actual quantity of
47 material removed and replaced.

48
49 *This section is supplemented with the following:*

50
51 "Removal and Replacement of Unsuitable Contaminated Material", per cubic yard.

1
2 The unit Contract price per cubic yard for "Removal and Replacement of Unsuitable
3 Contaminated Material" shall be full pay for all work required to haul to LRI or other
4 approved facility, disposal of the unsuitable material as specified in Section 7-08.3(1)A,
5 including disposal fees, and the furnishing of suitable backfill material as specified in
6 Section 7-08.3(3).
7

8 For the purpose of providing a common proposal for bidders, the proposal quantity for
9 "Removal and Replacement of Unsuitable Contaminated Material" is based on removal
10 and replacement of all backfill material and the anticipated quantity of pipe work in
11 contaminated areas. Payment will be made for the actual quantity of material removed
12 and replaced.
13

14 "Pipe Zone Contaminated Material Haul and Disposal", per cubic yard.
15

16 The unit Contract price per cubic yard for "Pipe Zone Contaminated Material Haul and
17 Disposal" shall be full pay for all work required to haul and dispose of the pipe zone
18 material as defined on Standard Plan SU-16, including disposal fees.
19

20 For the purpose of providing a common proposal for bidders, the proposal quantity for
21 "Pipe Zone Contaminated Material Haul and Disposal" is based on the quantity of
22 anticipated pipe work in contaminated areas. Payment will be made for the actual
23 quantity of contaminated material encountered.
24
25
26

27 **END OF SECTION**
28

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

(*****)

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 and shall supplement Section 8-01.

8-01.3(1) General

(*****)

This section is supplemented with the following:

It is the Contractor's responsibility to maintain, repair, and replace any and all erosion control measures and facilities as required to maintain compliance with the Tacoma Municipal Code Section 12.08 for the entire duration of the Project.

Erosion control and water pollution control items, and Best Management Practices (BMPs) shall be implemented according to the latest City of Tacoma Stormwater Management Manual. A copy of the City of Tacoma Stormwater Management Manual can be obtained by contacting Environmental Services at 253-591-5588 or email stormandsewer@cityoftacoma.org, subject "Stormwater Management Manual". The City of Tacoma Stormwater Management Manual can be viewed on the City of Tacoma website at the following link:

- <https://www.cityoftacoma.org/cms/One.aspx?pagelId=3092>

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). 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 List to aid the Contractor in development of the SWPPP. This list 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 5 of the SWMM. Contractors are encouraged to review the list prior to submitting the Construction SWPPP.

The City of Tacoma has prepared SWPPP templates that can be used for projects in the City. The template can be found on Tacoma's website at:

<https://www.cityoftacoma.org/cms/one.aspx?pagelId=144265>. The Contractor developing the SWPPP must ensure that all references are appropriate for the Project.

1
2 The SWPPP is considered a “living” document that shall be revised to account for
3 additional erosion control/pollution prevention BMPs as they become necessary and are
4 implemented in the field during project construction. A copy of the most current SWPPP
5 and TESC Plan shall remain on-site at all times and an additional copy shall be
6 forwarded to the Engineer. At the Contractor’s preference, revisions to the SWPPP and
7 TESC Plan may be forwarded to the Engineer rather than submitting a complete
8 document. Revisions to the SWPPP and TESC Plan may be kept on-site in a file along
9 with the original SWPPP document.

10
11 The Contractor shall provide Stormwater Pollution Prevention Plan inspection reports or
12 forms per 8-01.3(1) B to the Project Engineer no later than the end of the next working
13 day following the inspection.

14
15 **8-01.3(1)B Erosion and Sediment Control (ESC) Lead**

16 *This section is revised to read:*

17
18 The Contractor shall identify the ESC Lead at the Preconstruction Meeting and the
19 contact information for the ESC Lead shall be added to the Stormwater Pollution
20 Prevention Plan (SWPPP) Report and the Temporary Erosion and Sediment Control
21 (TESC) Plan Sheet. The ESC Lead shall maintain, for the life of the contract, a current
22 Certified Erosion and Sediment Control Lead (CESCL) certificate or maintain a current
23 Certified Professional in Erosion and Sediment Control (CPESC) certificate from a
24 course approved by the Washington State Department of Ecology. The CESCL or
25 CPESC shall be listed on the Emergency Contact List required under Section 1-
26 05.13(1).

27
28 The CESCL or CPESC shall direct implementation of the measures identified in the
29 SWPPP and as shown on the TESC plan. Implementation shall include, but is not
30 limited to the following:

- 31
32 1. Installing and maintaining all temporary erosion and sediment control Best
33 Management Practices (BMPs) included in the SWPPP and as shown on the
34 TESC plan. Damaged or inadequate BMPs shall be corrected as needed to
35 assure continued performance of their intended function in accordance with
36 BMP specifications and Permit requirements.
- 37 2. Performing monitoring as required by the NPDES Construction Stormwater
38 General Permit.
- 39 3. Inspecting all on-site erosion and sediment control BMPs at least once every
40 calendar week and within 24 hours of any discharge from the site. A SWPPP
41 Inspection report or form shall be prepared for each inspection and shall be
42 included in the SWPPP file. A copy of each SWPPP Inspection report or
43 form shall be submitted to the Engineer no later than the end of the next
44 working day following the inspection. The report or form shall include, but not
45 be limited to the following:
- 46 a. When, where, and how BMPs were installed, maintained, modified,
47 and removed.
 - 48 b. Observations of BMP effectiveness and proper placement.
 - 49 c. Recommendations for improving future BMP performance with
50 upgraded or replacement BMPs when inspections reveal SWPPP
51 inadequacies.

- 1 d. Approximate amount of precipitation since last inspection and when
2 last inspection was performed.
- 3 4. Updating and maintaining a SWPPP file on site that includes, but is not
4 limited to the following:
- 5 a. SWPPP Inspection Reports or Forms.
6 b. SWPPP narrative.
7 c. National Pollutant Discharge Elimination System Construction
8 Stormwater General Permit (Notice of Intent).
9 d. All documentation and correspondence related to the NPDES
10 Construction Stormwater General Permit.
11 e. Other applicable permits.
12

13 Upon request, the file shall be provided to the Engineer for review.
14

15 **8-01.3(8) Street Cleaning**

16 *The third paragraph after applying the amendment is revised to read:*
17

18 Street washing with water shall not be permitted.
19

20 **8-01.3(9)D Inlet Protection**

21 *The third paragraph is revised to read:*
22

23 When the depth of accumulated sediment and debris reaches approximately 1/3 the
24 height of an internal device or 1/3 the height of the external device (or less when so
25 specified by the manufacturer), or as designated by the Engineer, the sediment and
26 debris shall be removed and disposed of according to the current City of Tacoma
27 Stormwater Management Manual, Chapter 3, Section 3.2.11 BMP C220.
28

29 Only bag-type filters are allowed for use in the public right of way in accordance with
30 current City of Tacoma Stormwater Management Manual BMP C220, and Figure 2-20,
31 Catch basin Filter
32

33 **8-01.4 Measurement**

34
35 *This section is supplemented with the following:*
36

37 No specific unit of measurement shall apply to the lump sum item "Stormwater Pollution
38 Prevention Plan (SWPPP)".
39

40 *Add the following new sections:*
41

42 **8-01.5 Payment**

43
44 **8-01.5(2) Item Bids**

45
46 *The pay item "Erosion/Water Pollution Control", by force account as provided in Section*
47 *1-09.6 is revised to read:*
48

49 Installation, maintenance, and removal of erosion and water pollution control devices
50 according to the requirements of Section 8-01; including removal and disposal of
51 sediment, stabilization and rehabilitation of soil disturbed by these activities and any

1 additional Work deemed necessary by the Engineer to control erosion and water
2 pollution will be paid by force account in accordance with Section 1-09.6. Directing
3 implementation by ESC Lead of the measures identified in the SWPPP, shown on the
4 TESC plan, and all other work as included in Section 8-01.3(1)B shall be paid by force
5 account as provided in Section 1-09.6.

6
7 *This section is supplemented with the following:*

8
9 Where removal of erosion control BMPs is directed by the Engineer according to 8-
10 01.3(16) or according to these specifications and the plans, removal shall be included in
11 the lump sum or unit cost for these respective BMPs.

12
13 “Stormwater Pollution Prevention Plan (SWPPP)”, per lump sum.

14
15 The lump sum contract price for “Stormwater Pollution Prevention Plan (SWPPP)” shall
16 be full pay for all costs, including but not limited to, preparing, submitting, revising, and
17 resubmitting revisions for the Stormwater Pollution Prevention Plan.

18
19
20
21 **END OF SECTION**
22

8-02 ROADSIDE RESTORATION

(*****)

8-02.2 Materials

This section is supplemented with the following:

Root barrier shall be rigid-type root barrier module panels and shall be at least 75 percent recycled polypropylene or high-impact polystyrene with added ultraviolet inhibitors. Material shall have 0.060-inch to 0.075-inch wall thickness, 18-inch height. Panels shall have reinforcing ribs 1/2-inch deep, raised vertical ribs running perpendicular to sheet, 6 inches on center.

8-02.3 Construction Requirements

8-02.3(5) Roadside Seeding, Lawn and 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(5)B Lawn Area Preparation

Item 3 is supplemented with the following:

The depth of cultivation shall be 4 inches.

Item 4 is revised to read:

Till to a 4 inch depth, rake to a smooth even grade without low areas that trap water, and compact to 90% maximum modified proctor density. The finished grade of the soil shall be 1-inch below the top of all curbs, junction and valve boxes, walks, driveways, and other structures.

8-02.3(5)C Planting Area Preparation

Item 7 is supplemented with the following:

The finished grade shall be such that after planting, the grade shall be flush with adjoining vegetative surfaces; positive drainage shall also be maintained.

Add the following new Item:

8. The contractor shall be careful not to disturb any of the existing or cut slopes.

1 **8-02.3(6) Mulch and Amendments**

2 *This section is supplemented with the following:*

3
4 Recycled/compost material in accordance with Section 9-14.5(8) shall be blended with
5 the specified topsoil at a ratio of 1/1 by volume.

6
7 **8-02.3(8)C Pruning, Staking, Guying and Wrapping**

8 *This section is supplemented with the following:*

9
10 Crossed or rubbing branches shall be removed providing the natural shape of the tree is
11 preserved. Under no circumstances shall pruning be done prior to inspection and
12 approval of plants by the Engineer. All cuts shall be made flush with the parent stem
13 leaving no stubs. Pruning cuts shall be made in a manner to favor the earliest possible
14 covering of the wound by callus growth. Cuts that produce large wounds and weaken
15 the tree will not be acceptable.

16
17 Top growth removal to compensate for root loss shall not exceed one-third (1/3) of the
18 top growth unless otherwise specified or directed by the Engineer. Cuts created 3/4 inch
19 in diameter shall be treated with an approved tree wound dressing. All pruning shall
20 produce a clean cut without bruising or tearing the bark and shall be in living wood
21 where the wood can properly heal over.

22
23 Evergreens shall not be pruned, except to remove injured branches. The use of pole
24 shears and/or hedge shears for pruning deciduous and evergreen trees will not be
25 permitted. All trimmings and other debris left over from the planting operations shall be
26 collected and disposed of off the site.

27
28 All evergreen trees and deciduous trees over 15 feet in height shall be guyed with three
29 wires or cables.

30
31 All deciduous and evergreen trees shall be staked the same day of planting.

32
33 *Add the following sections:*

34
35 **8-02.3(8)D Root Barrier**

36
37 The Contractor shall stake location for approval of the Engineer before proceeding with
38 installation. Assemble the appropriate number of root barrier panels as required in the
39 Plans. Trench immediately adjacent to hardscape to the appropriate depth for installation
40 of specified root barrier so that top of barrier is 1/2 inch to 1 inch (12.7 mm to 25.4 mm)
41 above finished soil grade. Place root barrier in trench, vertical ribs facing toward planting
42 area and tree roots. Where possible, use pavement edge as a guide for root barrier
43 alignment. Backfill adjacent planting soil against the root barrier to promote clean fit to
44 hardscape. Fill to finish grade.

45
46 **8-02.3(8)E Tree Watering Bags**

47
48 The Contractor shall install one Tree Watering Bag per tree as shown on the plans,
49 following completion of the planting at the start of the watering season. Install Tree

Watering Bag in accordance with manufacturer's instructions and 8-02.3(18) Tree Watering Bag.

8-02.3(9) Seeding, Fertilizing, and Mulching

8-02.3(9)A Dates for Seed Application

The first paragraph is revised to read:

Unless otherwise allowed by the Engineer, and where no irrigation system is to be installed, seed shall be applied during the following periods only:

March 1st – June 30th

September 1st - October 25

8-02.3(9)B Seeding and Fertilizing

This section is supplemented with the following:

All seeding areas shall be seeded with the following mix:

Type of Seed	% by Weight
Dwarf Tall Fescue (several varieties) <i>Festuca arundinacea</i> var.	45
Dwarf Perennial Rye (Barclay) <i>Lolium perenne</i> var. <i>Barclay</i>	30
Red Fescue <i>Festuca rubra</i>	20
Colonial Bentgrass <i>Agrostis tenuis</i>	5

The rate of application shall be 120 lbs per acre.

8-02.3(10) Lawn Installation

8-02.3(10)A Dates and Conditions for Lawn Installation

The second 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

8-02.3(10)B Lawn Seeding and Sodding

The first paragraph is supplemented with the following:

Seed type, rate, and methods of application shall be in accordance with Section 8-02.9.

1 *The third paragraph is supplemented with the following:*

2
3 Topsoil shall be tilled in accordance with City of Tacoma Standard Plan GSI-01b. On
4 sloped areas, the sod strips shall be laid perpendicular to the flow of water.

5
6 **8-02.3(10)C Lawn Establishment**

7 *This section is supplemented with the following:*

8
9 Lawn that is replaced shall be of the same mixture and grade as the surviving lawn.

10
11 **8-02.3(11) Mulch**

12 *The first paragraph is supplemented with the following:*

13
14 Mulch shall be of the type and applied at the rate required in BMPs C120 & 121 of the
15 City of Tacoma Surface Water Management Manual. The contractor shall re-apply
16 mulch to protect exposed soil and seeded areas from erosion.

17
18 **8-02.3(11)B Bark or Wood Chip Mulch**

19 *The second sentence of the third paragraph is revised to read:*

20
21 Bark or wood chip mulch shall be feathered to plant material trunks, stems, canes, or
22 root collars, and level with the top of junction and valve boxes, curbs and pavement
23 edges.

24
25 *This section is supplemented with the following:*

26
27 Bark or wood chip mulch in accordance with Section 9-14.5(3) shall be applied to a
28 minimum depth of 3 inches at the location indicated on the Plans or as directed by the
29 Engineer.

30
31 **8-02.3(14) Plant Replacement**

32 *This section is revised to read:*

33
34 The Contractor shall provide the Contracting Agency a one (1) year non pro-rated, full
35 labor and materials warranty for all planted material. The warranty shall cause the
36 Contractor to remove and replace all rejected plant material during the warranty
37 period. The warranty period shall begin at the date of physical completion of the
38 contract and end one calendar year from that date.

39
40 The Contractor shall be responsible for growing or providing enough plants for
41 replacement of all plant material rejected during the warranty period. All rejected plant
42 material shall be replaced at dates approved by the Engineer.

43
44 All replacement plants shall be of the same species and quality as the plants they
45 replace. Plants may vary in size reflecting one season of growth should the Contractor
46 elect to hold plant material under nursery conditions for an additional year to serve as
47 replacement plants.

48
49 Replacement plants will be subject to the original warranty provision as stated above.

1 Add the following new section:

2 **8-02.3(17) Site Restoration**

3
4 During the construction of the roadway or HMA overlay, curb ramp construction, curb
5 and gutter construction, and sidewalk construction; the Contractor shall replace in kind,
6 including but not limited to: any lawn, topsoil, plants, wood chip mulch, garden walls,
7 rockery, or irrigation heads/pipes, affected by the work. Each location of work shall be
8 graded to a smooth and even surface, matching existing grades. Grading shall be
9 accomplished to blend the new work with the existing ground lines and to maintain
10 natural drainage courses. In areas abutting the roadway, or where it is common for
11 pedestrians to walk, lawn restoration shall either be protected from any kind of traffic
12 until the end of the establishment period or left in a manner that is firm when subjected
13 to foot traffic. Restoration of grass areas by placement of seed shall be done through
14 hydro-seeding. Hand seeding will not be allowed, except in small areas as allowed by
15 the Engineer. In addition landscaping items not included in the Proposal shall be
16 included under "Site Restoration", lump sum.

17
18 All excess materials shall be removed from the site.

19
20 **8-02.3(18) Tree Watering Bag**

21
22 Each tree watering bag shall be filled to capacity not less than once per week, during the
23 watering season, which is considered to be April 15th through September 30th. It is the
24 Contractor's responsibility to monitor the water in each watering bag and advise the City
25 if additional water cycles are required. The Contractor shall ensure that each watering
26 bag is functioning correctly and shall replace any malfunctioning, damaged, or stolen
27 watering bags. If watering a bag is stolen or damaged by the acts of others, the City will
28 pay invoice cost with no markup only for the replacement watering bags and the
29 Contractor will be responsible for the labor to install the replacement bags.

30
31 Watering will be weather dependent. It is the responsibility of the Contractor to monitor
32 the watering requirements and the frequency may increase or decrease throughout the
33 term of the Agreement. If more than 0.5 inches of rainfall occurs within a 48-hour period,
34 the contractor may elect to forgo tree watering until the rainfall has ceased and for a
35 period of 48 hours following the rain.

36
37 Upon completion of the contract, the watering bags in good working condition shall
38 become the property of the City. All other watering bags shall be disposed of by the
39 Contractor. The Contractor shall deliver the watering bags that are good working
40 condition to Environmental Services.

41
42 **8-02.4 Measurement**

43 *The first paragraph is revised to read:*

44
45 Topsoil, mulch and soil amendments will be measured by the cubic yard in the haul
46 conveyance at the point of delivery.

1 *The seventh paragraph is revised to read:*

2
3 Compost will be measured by the cubic yard in the haul conveyance at the point of
4 delivery.

5
6 *The fifteenth paragraph is deleted.*

7
8 *This section is supplemented with the following:*

9
10 No specific unit of measure will be applied to the lump sum bid item Site Restoration.

11
12 **8-02.5 Payment**

13 *This section is supplemented with the following:*

14
15 "Site Restoration", per lump sum.

16
17 The lump sum payment for "Site Restoration" shall be full pay for all materials, labor,
18 tools, equipment, and supplies necessary for restoration of the job site and any
19 landscape items according to the Plans and Specifications, including but not limited to
20 replacement of irrigation appurtenances, grass sod/seed, planting area preparation, soil
21 amendment, grading, cultivating, planting, mulching, cleanup, and water necessary to
22 complete the site restoration, as specified.

23
24 *The last paragraph is deleted.*

25
26
27 **END OF SECTION**
28
29
30

1 **8-04 CURBS, GUTTERS, AND SPILLWAYS**

2 **(*****)**

3
4 **8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways**

5 *The first paragraph is revised to read:*

6
7 Cement concrete curb, curb and gutters, gutters, and spillways shall be constructed with
8 air entrained concrete Class 3000 conforming to the requirements of Section 6-02.

9
10 *Section 8-04.3 Construction Requirements is supplemented with the following:*

11
12 **8-04.3(1)B Integral Cement Concrete Curb**

13
14 When integral curb is being constructed with the pavement, fresh concrete for the
15 integral curb shall be placed at such time as will enable the top section of the curb to be
16 consolidated, finished, and bonded to the pavement slab while the concrete is plastic.
17 The integral curb shall be delineated from the road panel by a contraction joint at 12"
18 from the gutter line.

19
20 **8-04.3(6) Cold Weather Work**

21
22 The following additional requirements for placing concrete shall be in effect from
23 November 1 to April 1:

- 24
25
 - 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

28 concrete shall be placed until the ground is completely thawed. At that time, the

29 forms shall be adjusted and subgrade repaired as determined by the Engineer.

30

31 **8-04.5 Payment**

32 *This section is supplemented with the following:*

33
34 The unit Contract price per linear foot for "Cement Conc. Traffic Curb and Gutter" shall
35 be full compensation for installing the complete Cement Conc. Traffic Curb and Gutter
36 per Plans and Specifications, and as directed by the Engineer; and shall also include
37 Roadside Restoration at the respective work location to restore any grass, bark mulch,
38 or other groundcover in kind.

39
40 **END OF SECTION**

1 **8-13 MONUMENT CASES**

2 **(*****)**

3
4 *This section is revised to read:*

5
6 **8-13.1 Description**

7
8 This work shall consist of constructing monuments in accordance with the Standard Plan
9 and these Specifications, and the required land surveying services by a Professional
10 Land Surveyor, registered in the State of Washington.

11
12 All existing monument cases that are intact shall be removed and sent to the City of
13 Tacoma Field Survey Office.

14
15 **8-13.2 Materials**

16
17 Concrete shall be Class 3000 in accordance with the requirements of Section 6-02.
18 'Ready Mix' bag concrete shall not be used.

19
20 Bronze markers will be supplied by the Contracting Agency.

21
22 **8-13.3 Construction Requirements**

23
24 The Contractor shall construct the poured monument in accordance with the City of
25 Tacoma Standard Plan SU-01. The brass marker position shall be staked by the
26 Contracting Agency. The brass marker shall be engraved with the PLS number of the
27 Professional Land Surveyor staking and verifying the monument location.

28
29 The Contracting Agency shall obtain a permit for the temporary removal of the
30 Monument from the Washington State Department of Natural Resources in accordance
31 with WAC 332-120. The Contracting Agency will provide a copy of the Permit to the
32 Contractor prior to removal of the existing Monument.

33
34 Brass disks will be installed with the text legible from facing magnetic North. Disks to be
35 installed to a positional tolerance of +/- 0.04 feet from center of disk to actual position by
36 the Contractor using four 2-foot offset reference marks established by the Contracting
37 Agency.

38
39 **8-13.4 Measurement**

40
41 Measurement of the poured monument will be per each.

42
43 **8-13.5 Payment**

44
45 Payment will be made in accordance with Section 1-04.1.

46
47 "Poured Monument", per each.
48
49
50

1 The unit Contract price per each for "Poured Monument" shall be full pay for all labor,
2 equipment, and materials required to furnish and install the monument, including the
3 removal of existing monuments and necessary pavement removal to accommodate the
4 installation in accordance with the standard plan and specifications.

5
6

END OF SECTION

8-14 CEMENT CONCRETE SIDEWALKS

(*****)

8-14.3 Construction Requirements

8-14.3(3) Placing and Finishing Concrete

The fourth paragraph is revised to read:

Except where plans provide a curb ramp design, curb ramps shall be designed in field by the Contractor and the Engineer as directed by the Engineer, and shall conform to City of Tacoma standard plans SU-05 through SU-05H. The detectable warning pattern shall have the truncated dome shape shown in the Standard Plans. In general, field design of curb ramps shall be guided by the following:

All ramps and ramp landings shall be a minimum of five feet wide.

Where one ramp is built on the 45 degree, to serve two crossing directions, the opening at the curb shall be a minimum of 8-feet and no more than 10-feet.

Design ramps for a 7% running slope or less, for constructability, where possible.

Design cross slopes for 1.5% where possible.

Free draining and smooth (grade breaks less than 2%) gutter grades shall govern.

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.

8-14.3(22) Cement Concrete Pedestrian Curbs adjoining Curb Ramps and landings

Cement Concrete Pedestrian Curbs shall be constructed per Section 8-04.3(1) and per plans. In addition, at curb ramps the contractor may construct monolithic Cement Concrete Pedestrian Curbs integral with adjoining Curb Ramps and landings per plans. The pedestrian curbs adjoining curb ramps and landings will be included in the unit price for curb ramps per Sections 8-14.4 and 8-14.5.

1 **8-14.3(23) Field Design**

2
3 Field Design involves the field design of curb ramps, and sidewalk connections to
4 existing grades for the finished product. The Contractor and the Engineer shall
5 collaborate on field design. All grade checking needed to complete the field design shall
6 be provided by the Contractor. "Field Design" can be applied to other subjects besides
7 sidewalks and curb ramps; such as concrete road, curbs, and utilities if necessary.
8

9 The Contractor shall continue work, during the field design time, in unaffected areas of
10 the Project, in accordance with the Plans and Specifications. Some localized delay is
11 inherent in this process, and the Contractor shall be prepared to collaborate and move
12 crews on to other work locations.
13

14 The contractor shall not be entitled to additional compensation or additional work days
15 due to delays from field design.
16

17 **8-14.4 Measurement**

18 *This section is supplemented with the following:*
19

20 The bid item "Cement Conc. Curb Ramp" will be measured per each for the complete
21 curb ramp installed according to standard plans, and as directed by the Engineer, and
22 includes installation of the detectable warning surface, wings or flares, ramps, landings,
23 and adjoining pedestrian curbs. This bid item shall include all curb ramp types.
24

25 **8-14.5 Payment**

26 *The pay item "Cement Conc. Sidewalk" is supplemented with the following:*
27

28 All additional costs related to the construction of thickened edges shall be included in the
29 unit contract cost for "Cement Conc. Sidewalk". The unit contract cost for "Cement Conc.
30 Sidewalk" shall also include Roadside Restoration at the respective work location to
31 restore any grass, bark mulch, or other groundcover in kind.
32

33 *The sixth paragraph is revised to read:*
34

35 The Contractor shall include all costs associated with excavating, including haul and
36 disposal, regardless of the depth in the unit contract price for "Cement Conc. Sidewalk"
37 and/or "Cement Conc. Curb Ramp Type ____" and "Cement Conc. Curb Ramp".
38

39 *This section is supplemented with the following:*
40

41 "Cement Conc. Curb Ramp", per each
42

43 The unit Contract price per each for "Cement Conc. Curb Ramp" shall be full pay for
44 installing the complete curb ramp per Plans and Specifications, and as directed by the
45 Engineer; including ramps, landings, flares, wings, pedestrian curbs, and detectable
46 warning surfaces as specified.
47

48 **END OF SECTION**
49
50

1 **8-20 ILLUMINATION, TRAFFIC SIGNAL SYSTEMS, INTELLIGENT**
2 **TRANSPORTATION SYSTEMS, AND ELECTRICAL**
3 **(*****)**

4
5 **8-20.3(5) Conduit**

6
7 **8-20.3(5)A General**

8 *This section is supplemented with the following:*

9
10 As soon as the mandrel has been pulled through, both ends of the conduit shall be
11 sealed in an approved manner. Location wire, in conformance with 9-29.3(2)A4 and Pull
12 Tape, in conformance with 9-29.1(10), shall be installed in all empty conduits. At least
13 three (3) feet of the location wire and pull tape shall be neatly coiled and secured to the
14 conduit in the same manner as is shown in Washington State Department of
15 Transportation Standard Plan J-28.70-01, Details A and B.

16
17 **8-20.3(5)B Conduit Type**

18 *This section is supplemented with the following:*

19
20 Conduit under driveways and other vehicular access ways shall be Schedule 80 high-
21 density polyethylene (HDPE), Schedule 80 PVC, or rigid metal conduit (RMC).

22
23 **8-20.3(5)E1 Open Trenching**

24 *Subsection 5 is revised to read:*

- 25
26 5. Trenches located within the paved roadway shall be backfilled with 3 inches of
27 sand over the conduit, followed by material meeting the requirements of Section
28 9-03.12(3). Compaction shall be in conformance with Section 2-09.3(1)E. All
29 street cuts shall be repaired in accordance with the standard plans.

30
31 *This section is supplemented with the following new Subsections:*

- 32
33 7. Where multiple conduit are installed in the same trench, the trench shall be of
34 sufficient width to accommodate all conduit, with a minimum 3-inch separation
35 between each conduit, and a minimum clearance of 1-inch on the sides of the
36 trench. When conduit is laid horizontal to one another, the conduit shall be laid
37 at the same elevation, parallel with one another. When conduit is laid vertically in
38 the same trench, conduit spacers shall be used to maintain the 3-inch separation.
39 Spacers shall be installed in accordance with the manufacturer's
40 recommendations for conduit of that size and type. Additional spacers shall be
41 required where the supported conduit is sagging more than 20% of the nominal
42 diameter of the conduit.
43 8. In all conduit trenches, metallic, detectable, utility warning tape shall be placed at
44 twelve (12) inches below final grade.

45
46 **8-20.4 Measurement**

47 *This section is supplemented with the following:*

48
49 Removal and replacement of existing junction boxes will be measured per each.

1 **8-20.5 Payment**

2 *This section is supplemented with the following:*

3
4 "Remove and Replace Junction Box", per each.

5
6 The unit contract price per each for "Remove and Replace Junction Box" shall be full pay
7 for all labor, materials, and equipment to complete the work, including, but not limited to,
8 removal of old junction box, grading for new box, and providing and installing new
9 junction box in accordance with the plans and specifications.

10
11 **END OF SECTION**

1 **8-22 PAVEMENT MARKING**
2 **(April 1, 2018 Tacoma GSP)**
3

4 **8-22.1 Description**

5 *This Section is supplemented with the following:*
6

7 **Chevrons**

8 A "Chevron" shall be provided on speed humps for each approach. For a street width
9 less than 28 feet, the "Chevron" shall start at the edge of roadway (gutter line). For a
10 street width greater than 28 feet, the "Chevron" shall start at the center of the roadway.
11 Refer to details specified within the plans. Chevrons shall be provided along bike lane
12 buffers at locations specified on the plans or as directed by the Engineer.
13

14 **Green Durable Product**

15 Green Durable Product shall be provided at locations identified on the plans such as
16 "Bike Box" and "Bike Transition Lane" locations and as directed by the Engineer. Refer
17 to details specified within these plans and specifications. The product shall be a
18 durable, color stable, non-slip surface.
19

20 **Sharrow Pavement Marking**

21 Sharrow pavement marking shall be provided at locations identified in the plans. Refer
22 to City of Tacoma Standard Plan CH-11 and/or other details specified within these plans
23 and specifications. The product shall be a durable, color stable, non-slip surface.
24

25 **8-22.2 Materials**

26 *The Section is supplemented with the following:*
27

28 All legends and arrows including "Plastic Arrow", "Plastic Sharrow Symbol", and "Plastic
29 Letter" markings shall be a Preformed retro-reflective thermoplastic pavement marking
30 material incorporating a pre-applied bead coating that can be adhered to asphalt,
31 concrete and Portland Cement Concrete pavements by means of heat fusion. All
32 "Plastic Chevron", "Plastic Crosswalk Line", and "Plastic Stop Line" shall be hot applied
33 thermoplastic. The applied markings shall be very durable, oil and grease impervious,
34 and provide immediate and continuing retro-reflectivity meeting the requirements of
35 Section 9-34.3(2).
36

37 "Green Durable Product" materials shall meet the requirements of section 9-34.3(4) for
38 MMA.
39

40 Materials used for curb paint shall be the same as for pavement marking paint per
41 Section 9-34.2.
42

43 **8-22.3 Construction Requirements**
44

45 **8-22.3(3)E Installation**

46 *The Section is supplemented with the following for applying Type B material:*
47

48 **Effective Performance Life:** When properly applied, in accordance with manufacturer's
49 instructions, the preformed marking materials shall be neat and durable. The markings
50 shall remain skid resistant and show no lifting, shrinkage, tearing, roll back, or other
51 signs of poor adhesion.

1 **Packaging:** The flexible preformed marking material, for use as transverse or bike
2 symbols as well as legends, shall be available in flat form material up to a maximum of 2
3 foot width by 4 foot length. The material shall be packed in suitable cartons clearly
4 labeled for ease of identifying the contents. Packaging shall not use plastic liners within
5 to separate material from itself. Product packaging shall identify part number and mil
6 thickness.

7
8 **Material Replacement Provisions:** Any properly applied preformed marking materials
9 that shall smear or soften independent of pavement movement or condition within a
10 period of one year from date of application shall be replaced by the supplier.

11
12 **Installation:** The preformed marking materials shall be applied in accordance with the
13 manufacturer's recommendations on clean and dry surfaces. New Portland concrete
14 cement surfaces must be sandblasted to entirely remove curing compound. Marking
15 configuration shall be in accordance with the "Manual on Uniform Traffic Control
16 Devices," where applicable.

17
18 **New Surfaces:** Preformed marking materials specified for newly paved asphalt road
19 surfaces shall be capable of being applied as the original permanent marking on the day
20 the surface is paved.

21
22 **Fusion:** The preformed marking materials shall be fusible to the pavement by means of
23 a propane torch recommended by the manufacturer.

24
25 **Technical Services:** The supplier shall provide technical services as may be required.

26 27 **8-22.3(3)F Application Thickness**

28 *The Section is supplemented with the following:*

29
30 **Green Durable Product:** Approximately 4.2 Gallon mixture of Green colored MMA,
31 hardwearing aggregate, and catalyst should cover 70-75 SF at 90 mils thickness.

32 33 **8-22.3(4) Tolerances for Lines**

34 *The allowable tolerance for "Length of Line" is revised to read:*

35
36 **Length of Line:** The longitudinal accumulative error within a 32-foot length of skip
37 stripe shall not exceed plus or minus 1 inch.

38 39 **8-22.4 Measurement**

40 *The last sentence of the sixth paragraph is revised to read:*

41
42 Crosswalk lines will be measured by the linear foot of marking installed.

43
44 *The section is supplemented with the following:*

45
46 Green Durable Products will be measured by the square foot of marking area installed.

47
48 Painted curb will be measured by the linear foot of curb line as "Painted Curb."

49
50 Plastic Sharrow Symbols will be measured by each typical sharrow symbol installed.

1 **8-22.5 Payment**

2 *This section is supplemented with the following:*

3
4 "Painted Crosswalk Line", per linear foot.

5
6 "Plastic Crosswalk Line", per linear foot.

7
8 "Painted Curb", per linear foot.

9
10 "Green Durable Product", per square foot.

11
12 "Plastic Sharrow Symbol", per each.

13
14 "Remove Paint Line", per linear foot.

15
16 "Remove Traffic Marking," per each.

17
18
19 **END OF SECTION**
20

8-30 CEMENT CONCRETE STAIRWAY AND HAND RAILING

(*****)

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:

Portland Cement 9-01

Aggregates 9-03

Premolded Joint Filler 9-04.1

Concrete Curing Materials and Admixtures 9-23

Reinforcing Bars 9-07

Paint 9-08

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 and Finishing 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 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.

8-30.3(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 - Black Enamel," of the Standard Specifications.

8-30.4 Measurement

Measurement of cement concrete stairway, hand rail, and guard will be by the linear foot in accordance with City of Tacoma Standard Plan SU-10.

1
2 "Cement Conc. Stairway", per linear foot.
3

4 The unit Contract price per linear foot for "Cement Conc. Stairway" shall be full pay for
5 all labor, equipment, and materials required for clearing and grubbing; excavation;
6 subgrade preparation; construction of forms; furnishing and placing reinforcing steel;
7 furnishing and placing of concrete in accordance with the plans and specifications.
8

9 "____ Hand Rail", per linear foot.
10

11 The unit Contract price per linear foot for "____ Hand Rail" shall be full pay for all labor,
12 equipment, and materials, required to construct and complete the railing in accordance
13 with the plan and specification.
14

15 "____ Guard", per linear foot.
16

17 The unit Contract price per linear foot for "____ Guard" shall be full pay for all labor,
18 equipment, and materials, required to construct and complete the guard in accordance
19 with the plan and specification.
20

21
22 **END OF SECTION**
23
24

1 **9-03 AGGREGATES**

2 **(September 20, 2018 Tacoma GSP)**

3
4 **9-03.1 Aggregates for Portland Cement Concrete**

5
6 **9-03.1(1) General Requirements**

7 **(June 16, 2016 Tacoma GSP)**

8 *The seventh paragraph is deleted*

9
10
11
12
13 **END OF SECTION**
14
15

1 **9-28 SIGNING MATERIALS AND FABRICATION**
2 **(April 1, 2012 Tacoma GSP)**
3

4 **9-28.1 General**

5 *The second sentence of the first paragraph is hereby revised to read:*
6

7 Permanent signs which measure 36 inches or less on a side and are to be mounted on a
8 single post shall be constructed of single 0.080-inch aluminum panels.
9

10 *The third sentence of the first paragraph is hereby revised to read:*
11

12 Sign overlay panels shall be 0.050-inch aluminum panels.
13

14 **9-28.9 Fiberglass Reinforced Plastic Signs**

15 *This section is deleted in its entirety.*
16
17

18 **END OF SECTION**
19
20

21 **END OF SPECIAL PROVISIONS**
22

APPENDIX A

CITY OF TACOMA

and

WSDOT STANDARD PLANS

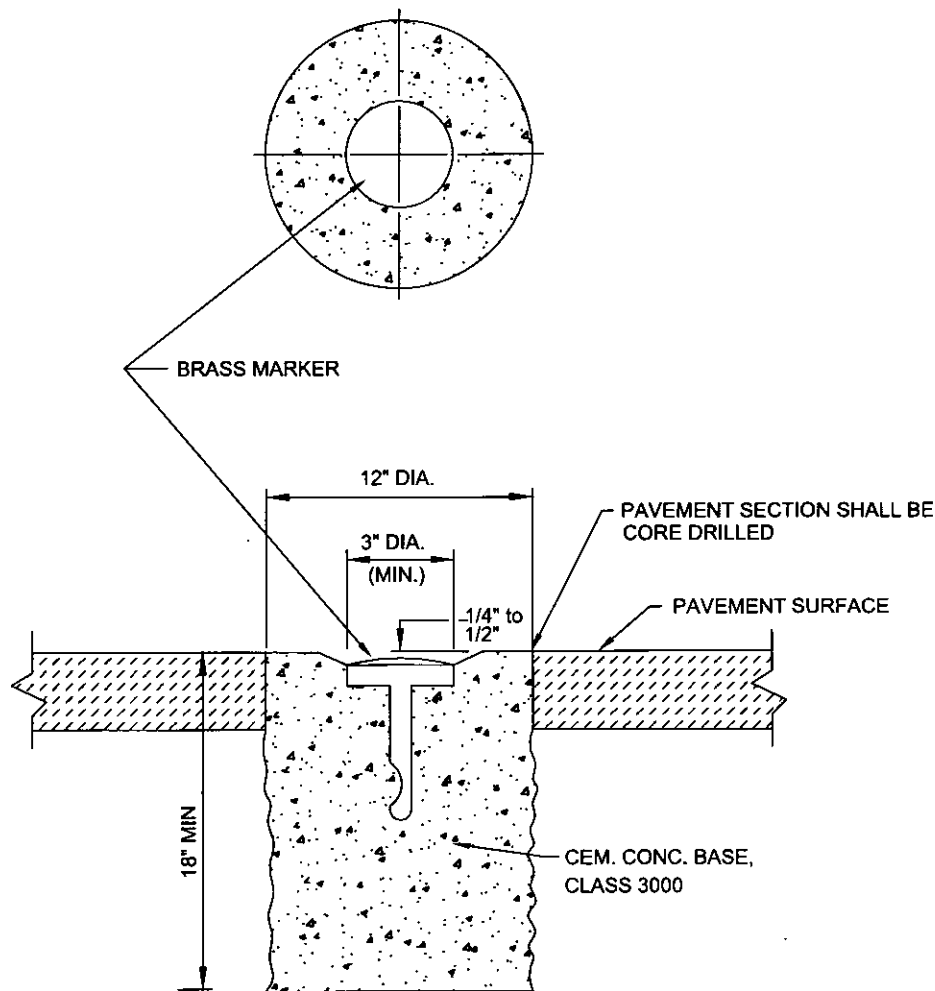
***** Note Standard plans and websites provided below are for contractor convenience. Additional standard plans may be required to construct the project. *****

COT Standard Plans Website:

https://www.cityoftacoma.org/government/city_departments/public_works/engineering/standard_plans_and_q_i_s_typical_details

WSDOT Standard Plans Website:

<https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/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.

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

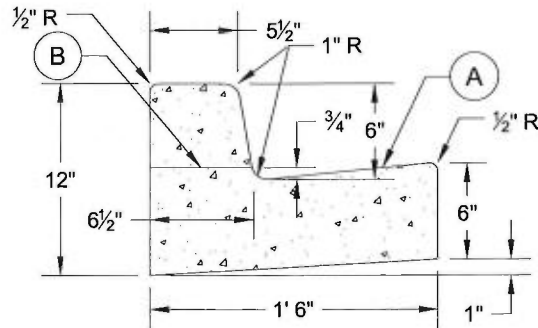
James Parney 09 JUN 2009
CITY ENGINEER DATE

POURED MONUMENT

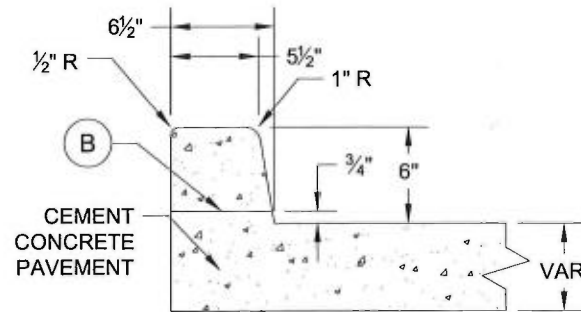
STANDARD PLAN NO. SU-01

NOTES:

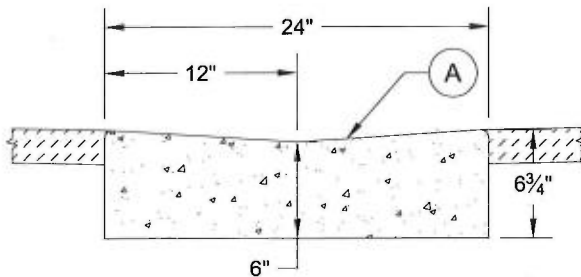
- (A) When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement. The height of the curb shall be 6", unless otherwise shown on plans.
- (B) Flush with gutter pan at curb ramp entrance or $\frac{3}{4}$ " vertical lip at driveway entrance.



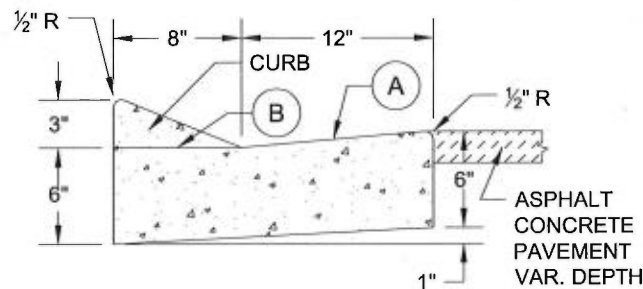
CEMENT CONCRETE TRAFFIC CURB & GUTTER



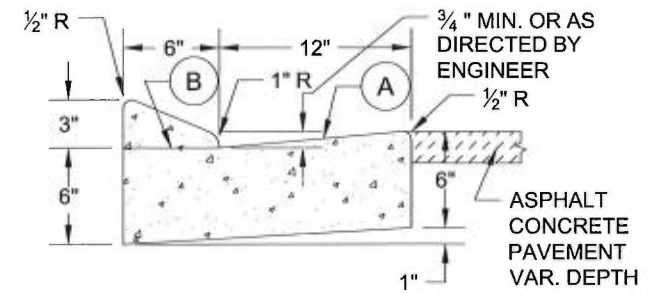
INTEGRAL CEMENT CONCRETE TRAFFIC CURB



CEMENT CONCRETE VALLEY GUTTER



TYPE "C" MOUNTABLE CEMENT CONCRETE CURB & GUTTER



TYPE "D" MOUNTABLE CEMENT CONCRETE CURB & GUTTER

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 $\frac{3}{8}$ " 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 $\frac{5}{8}$ " crushed surfacing top course.

DCS

PUBLIC WORKS

NA

TACOMA POWER

REVIEWED BY

GMS

ENVIRONMENTAL SERVICES

NA

TACOMA WATER



APPROVED FOR PUBLICATION

[Signature] 8/16/16

CITY ENGINEER

DATE

CITY OF TACOMA

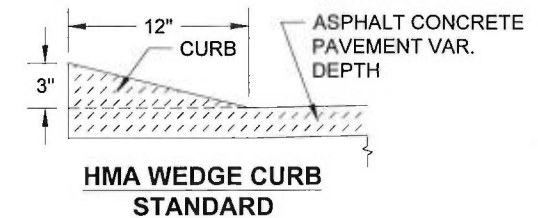
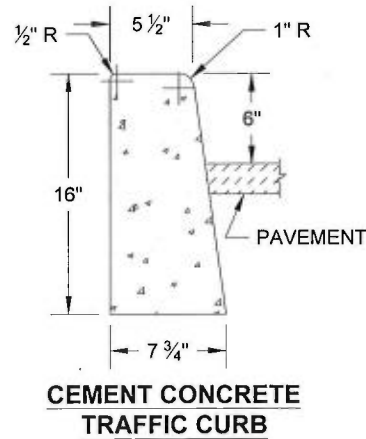
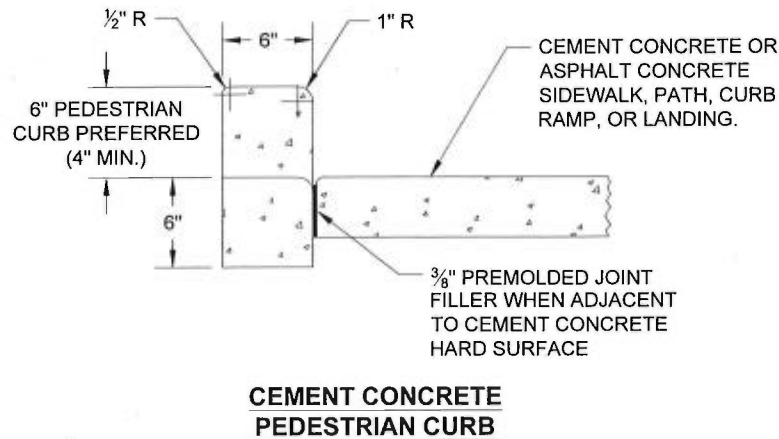
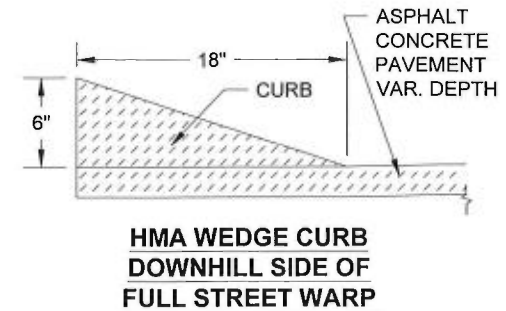
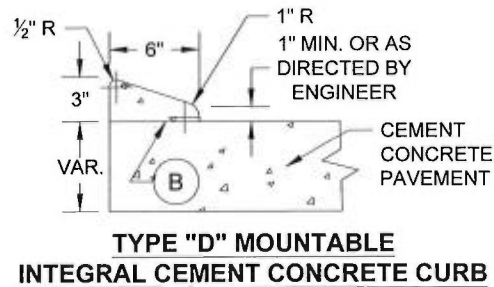
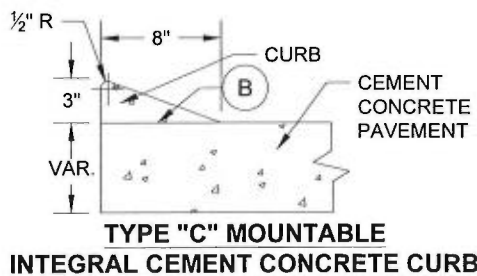
CEMENT CONCRETE CURB AND GUTTER

STANDARD PLAN NO.

SU-03

NOTE:

- (B) Flush with gutter pan at curb ramp entrance or $\frac{3}{4}$ " 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 $\frac{3}{8}$ " 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 $\frac{5}{8}$ " crushed surfacing top course.

DCS

PUBLIC WORKS

NA

TACOMA POWER

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ENVIRONMENTAL
SERVICES

NA

TACOMA WATER



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[Signature] 8/16/16

CITY ENGINEER

DATE

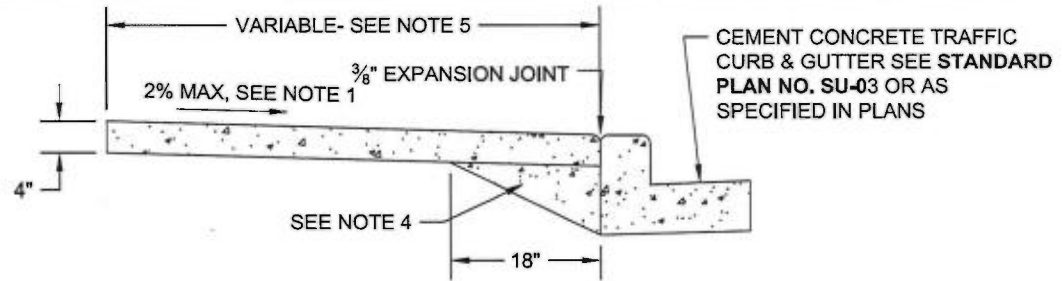
CITY OF TACOMA
CEMENT CONCRETE
CURB AND GUTTER AND
ASPHALT WEDGE CURB

STANDARD PLAN NO.

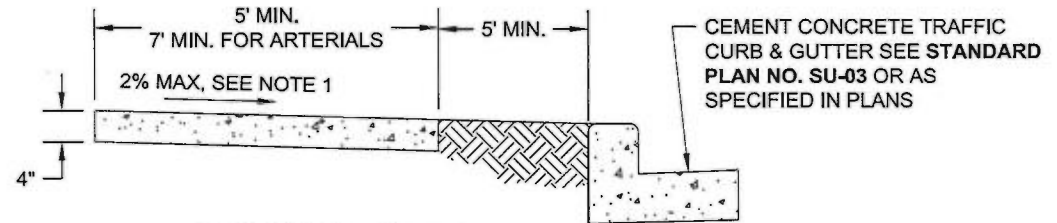
SU-03A

NOTES:

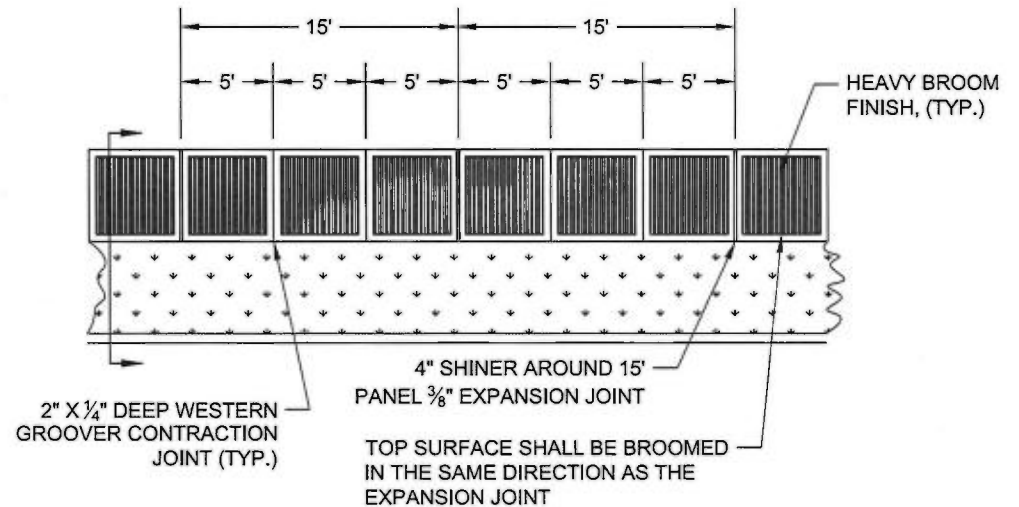
1. Sidewalks shall be designed and constructed in accordance with 2010 ADA Standards, 28 CFR, Part 35 and as supplemented by the Public Right of Way Accessibility Guidelines (PROWAG). City of Tacoma prefers sidewalk cross slopes to be designed to a maximum of 1.5% and a minimum of 1.0%
2. When placing 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 $\frac{3}{8}$ " premolded joint filler.
7. All joints shall be cleaned and edged. External edges shall be $\frac{1}{2}$ " radius. Internal joints shall be $\frac{1}{4}$ " 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 $\frac{3}{8}$ " 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.



SECTION DETAIL A-A

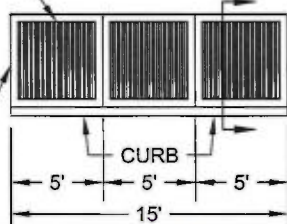


SECTION DETAIL B-B



TOP SURFACE SHALL BE BROOMED IN THE SAME DIRECTION AS THE EXPANSION JOINT

4" SHINER AROUND 15' PANEL $\frac{3}{8}$ " EXPANSION JOINT



$\frac{3}{8}$ " EXPANSION JOINT TO MATCH CURB JOINTS NOT TO EXCEED 15'

2" X $\frac{1}{4}$ " DEEP WESTERN GROOVER CONTRACTION JOINT (TYP.)

4" SHINER AROUND 15' PANEL $\frac{3}{8}$ " EXPANSION JOINT

TOP SURFACE SHALL BE BROOMED IN THE SAME DIRECTION AS THE EXPANSION JOINT

REVIEWED BY

PUBLIC WORKS

N/A

TACOMA POWER

ENVIRONMENTAL SERVICES

N/A

TACOMA WATER



APPROVED FOR PUBLICATION

CITY ENGINEER

4/25/19
DATE





CITY OF TACOMA

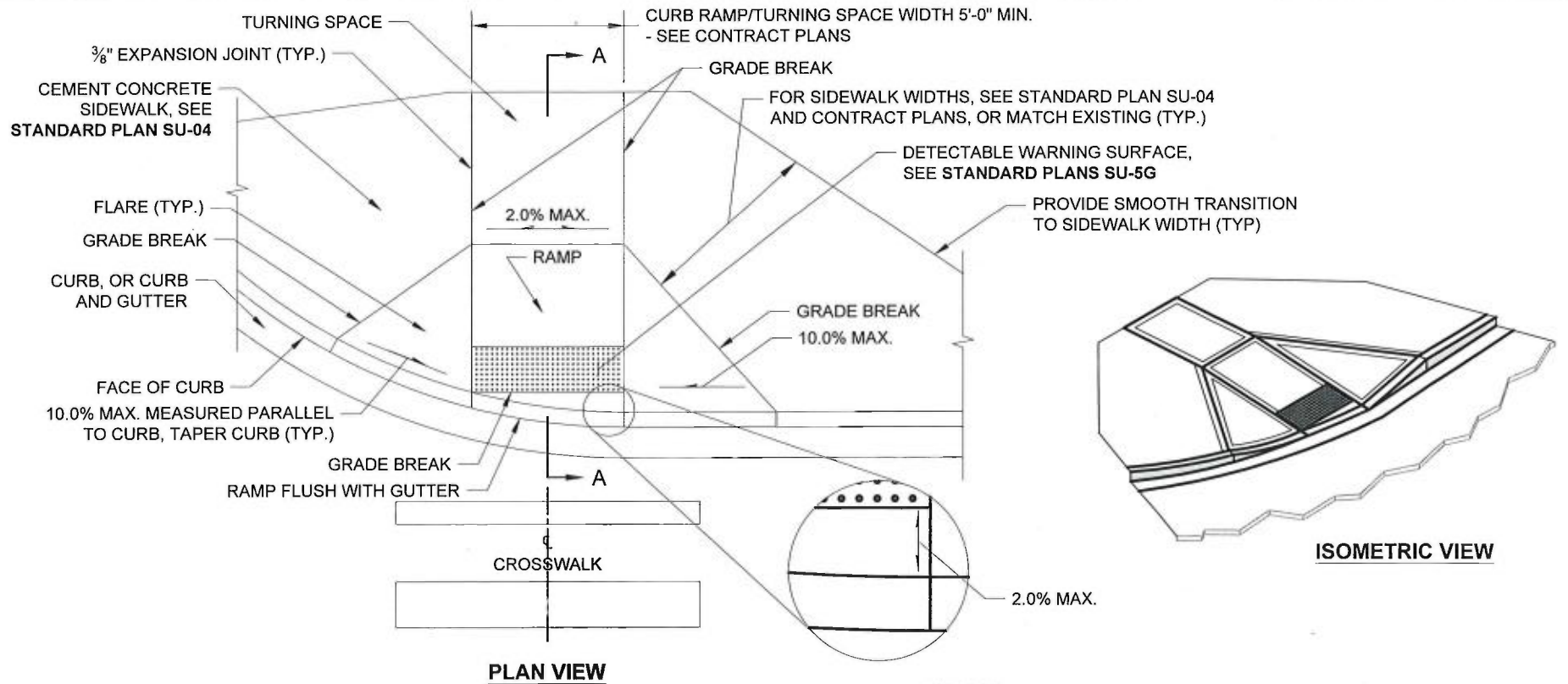
CEMENT CONCRETE
SIDEWALK

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.
4. See Contract Plans for the curb design specified. See **Standard Plan SU-03** and **SU-03A** for Curb, and Curb and Gutter Details.
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 1lb. 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 an 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 6 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.

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 PUBLIC WORKS	 ENVIRONMENTAL SERVICES		 CITY ENGINEER		CURB RAMP DETAILS GENERAL INFORMATION	
 TACOMA POWER	 TACOMA WATER	8/16/16 DATE		STANDARD PLAN NO. SU-05		

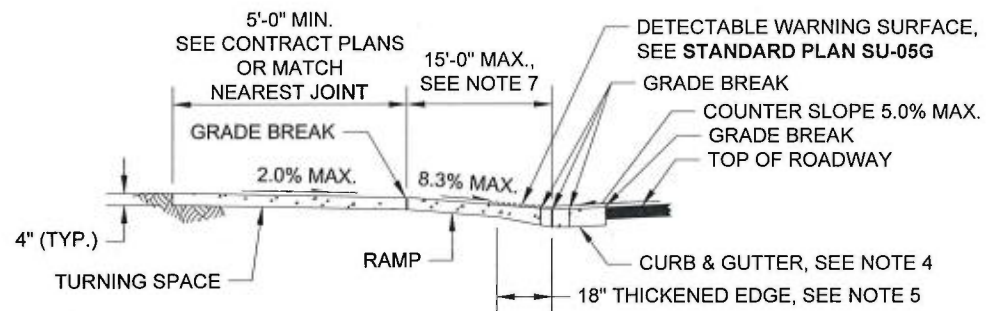


NOTES:

See **Standard Plan SU-05** for referenced notes

LEGEND

— SLOPE IN EITHER DIRECTION



SECTION DETAIL A-A

DCS

REVIEWED BY

GMS

PUBLIC WORKS

ENVIRONMENTAL SERVICES

NA

NA

TACOMA POWER

TACOMA WATER



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[Signature] 8/16/16

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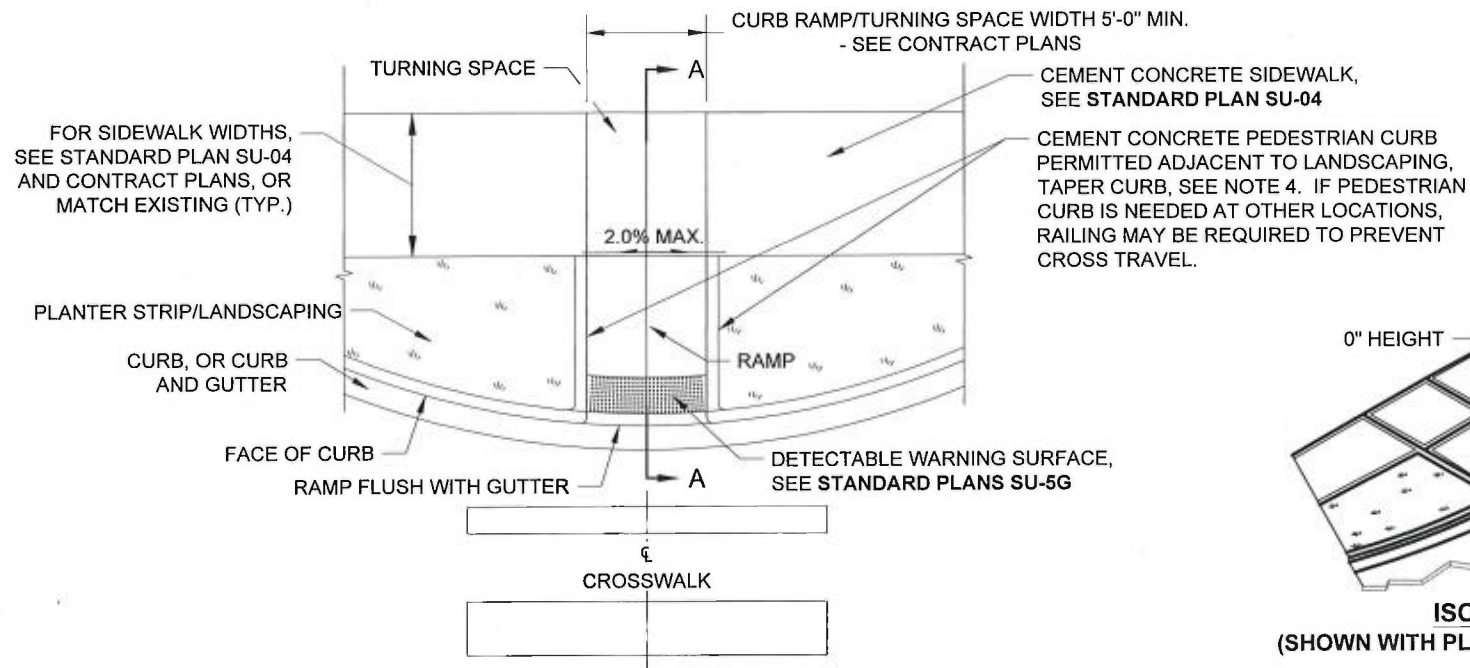
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CITY OF TACOMA

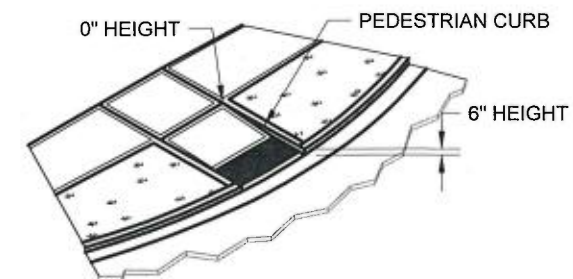
PERPENDICULAR CURB RAMP
TYPE 'A'

STANDARD PLAN NO.

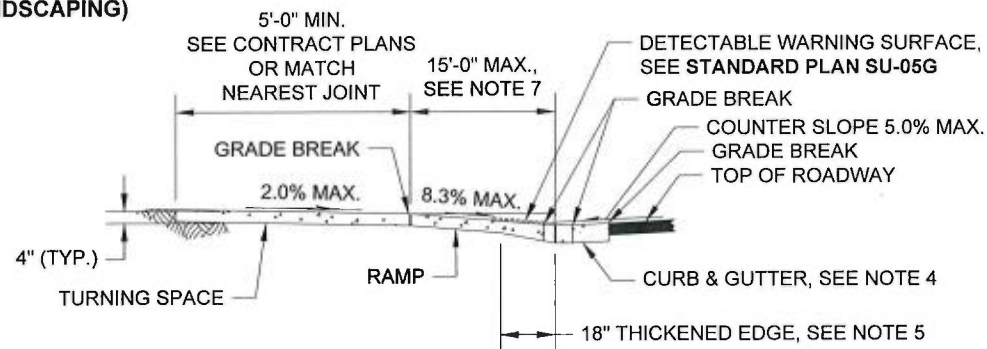
SU-05A



PLAN VIEW
(SHOWN WITH PLANTER STRIP/LANDSCAPING)



ISOMETRIC VIEW
(SHOWN WITH PLANTER STRIP/LANDSCAPING)



SECTION DETAIL A-A

NOTES:

See **Standard Plan SU-05** for referenced notes

LEGEND

— SLOPE IN EITHER DIRECTION

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GMS

PUBLIC WORKS

ENVIRONMENTAL SERVICES

NA

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TACOMA POWER

TACOMA WATER



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[Signature] 8/16/16

CITY ENGINEER

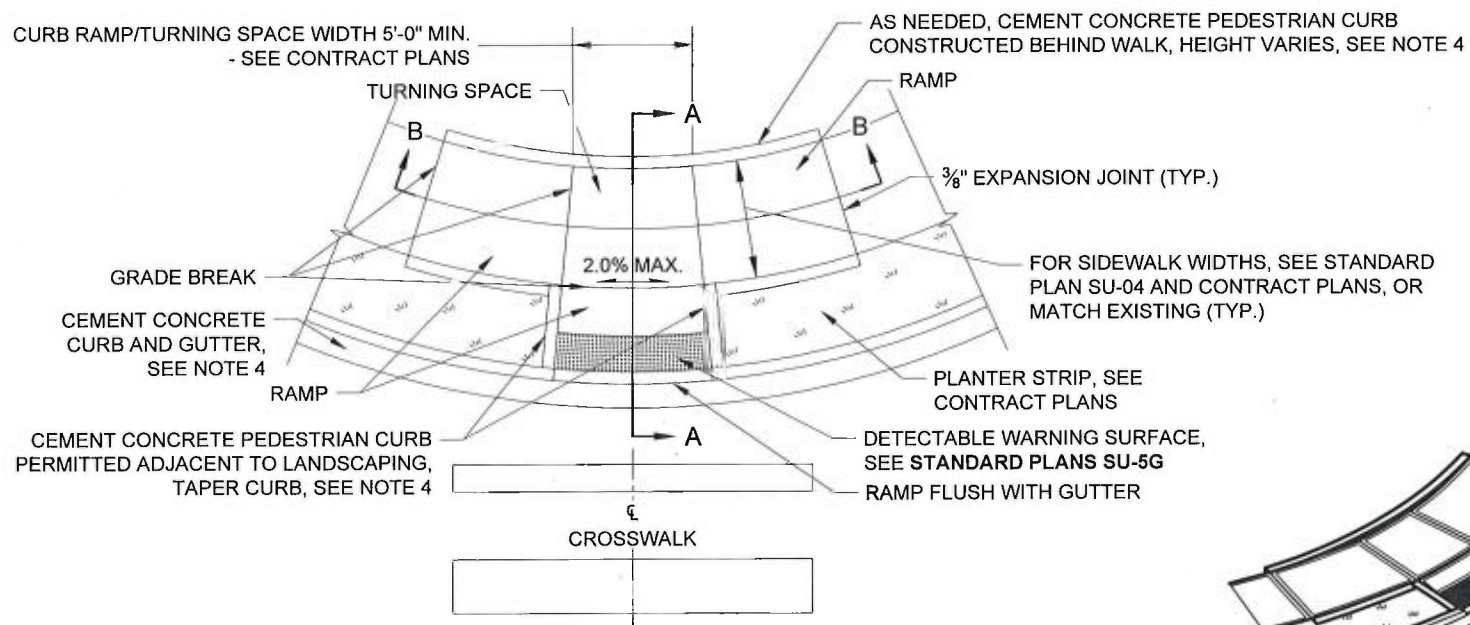
DATE

CITY OF TACOMA

PERPENDICULAR CURB RAMP
TYPE 'B'

STANDARD PLAN NO. SU-05B

CURB RAMP/TURNING SPACE WIDTH 5'-0" MIN.
- SEE CONTRACT PLANS



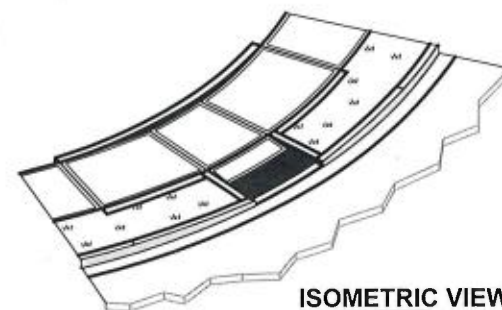
PLAN VIEW
(WITH PLANTER STRIP/LANDSCAPING)

NOTES:

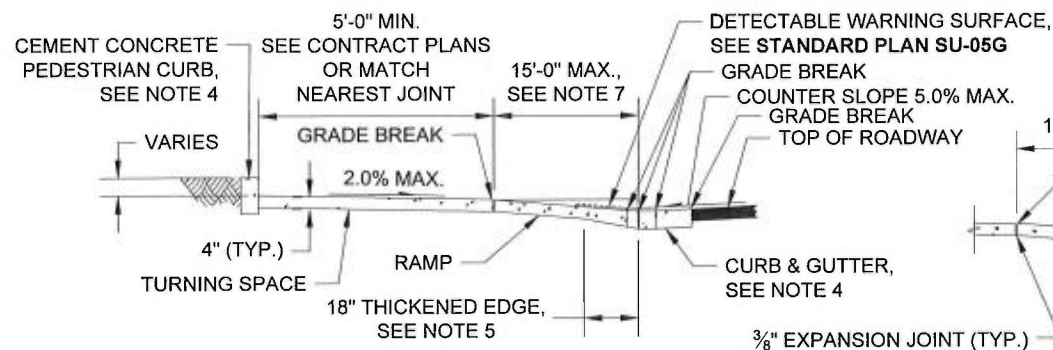
See **Standard Plan SU-05** for referenced notes

LEGEND

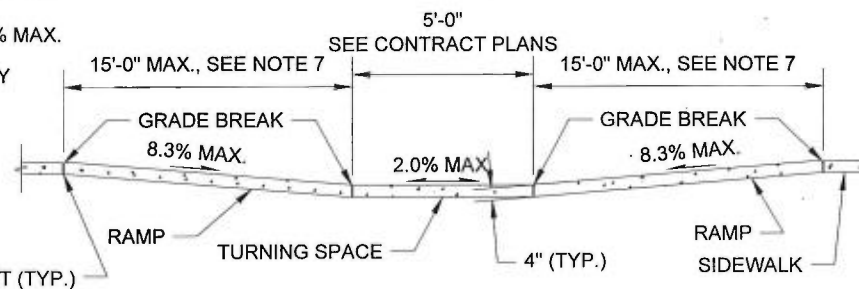
— SLOPE IN EITHER DIRECTION



ISOMETRIC VIEW



SECTION DETAIL A-A



SECTION DETAIL B-B

DCS

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PUBLIC WORKS

ENVIRONMENTAL
SERVICES

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NA

TACOMA POWER

TACOMA WATER



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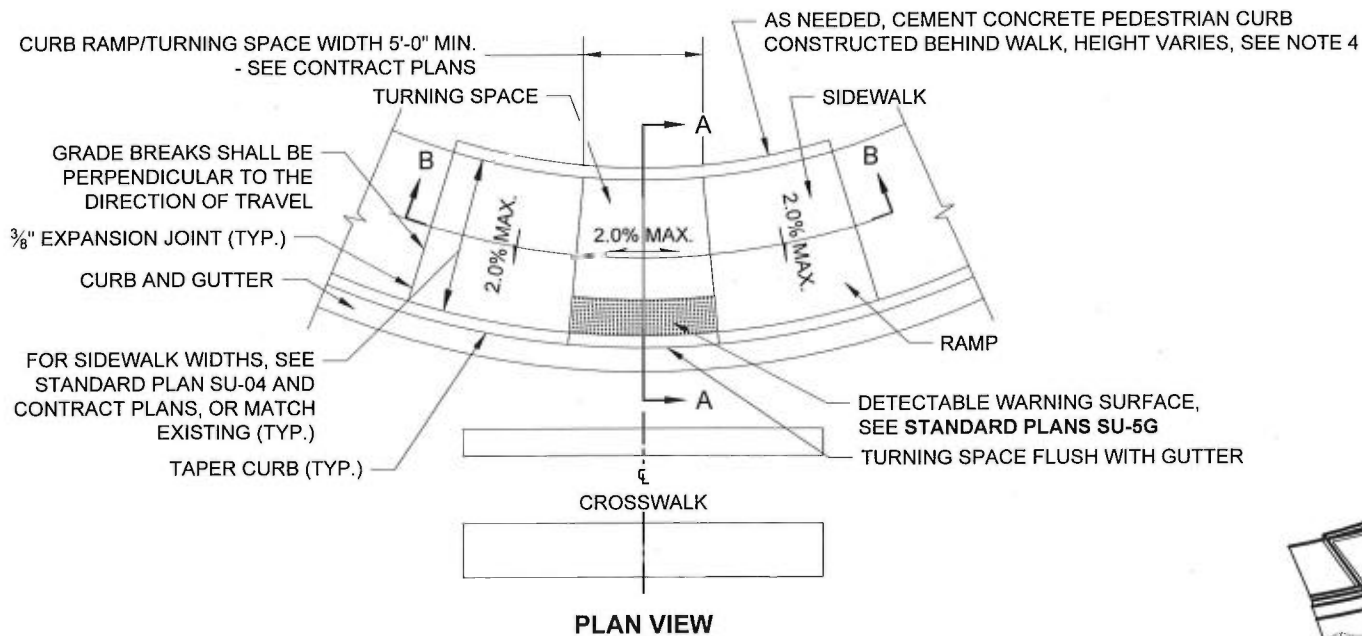
CITY ENGINEER

DATE

CITY OF TACOMA

COMBINATION CURB RAMP

STANDARD PLAN NO. SU-05C



NOTES:

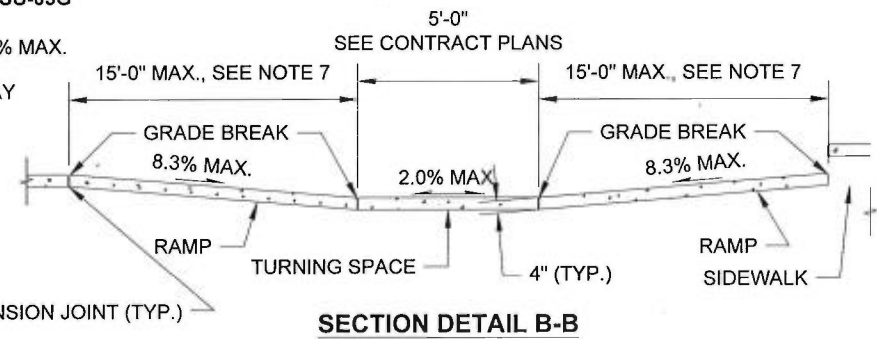
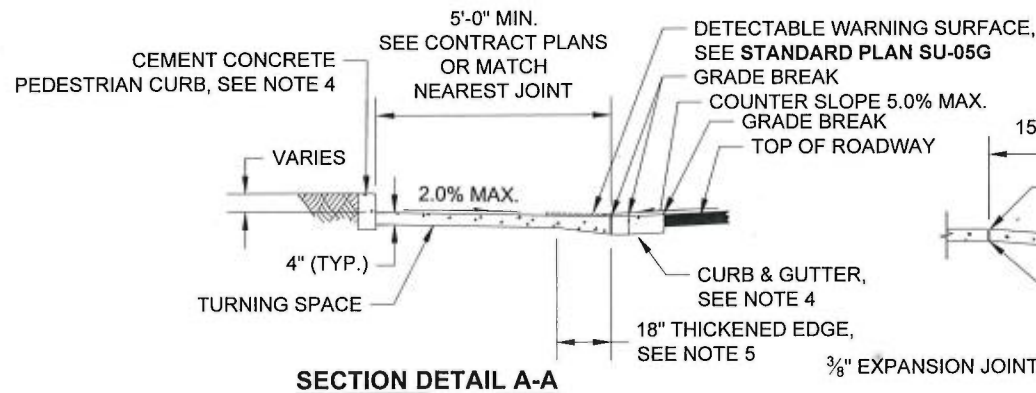
See **Standard Plan SU-05** for referenced notes

LEGEND

— SLOPE IN EITHER DIRECTION



ISOMETRIC VIEW



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TACOMA WATER



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CITY ENGINEER

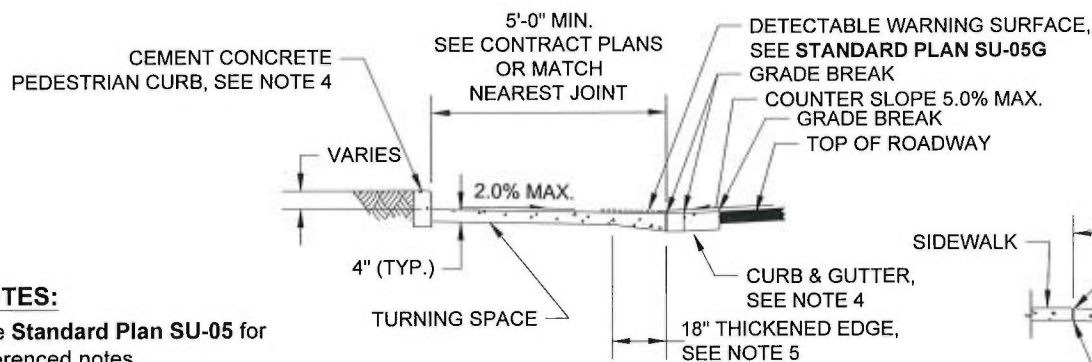
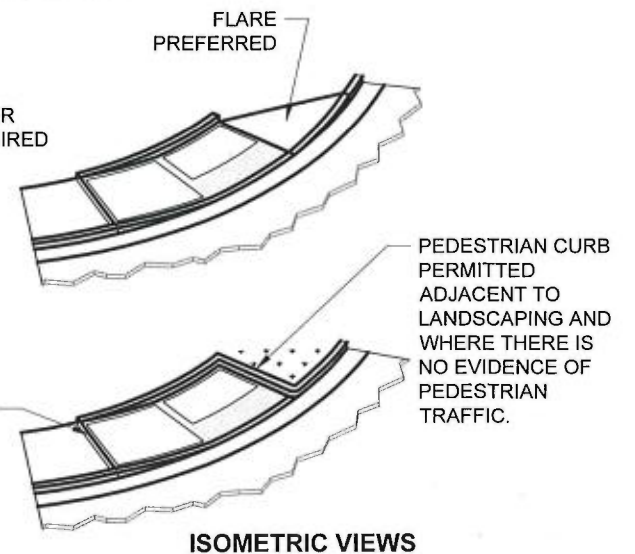
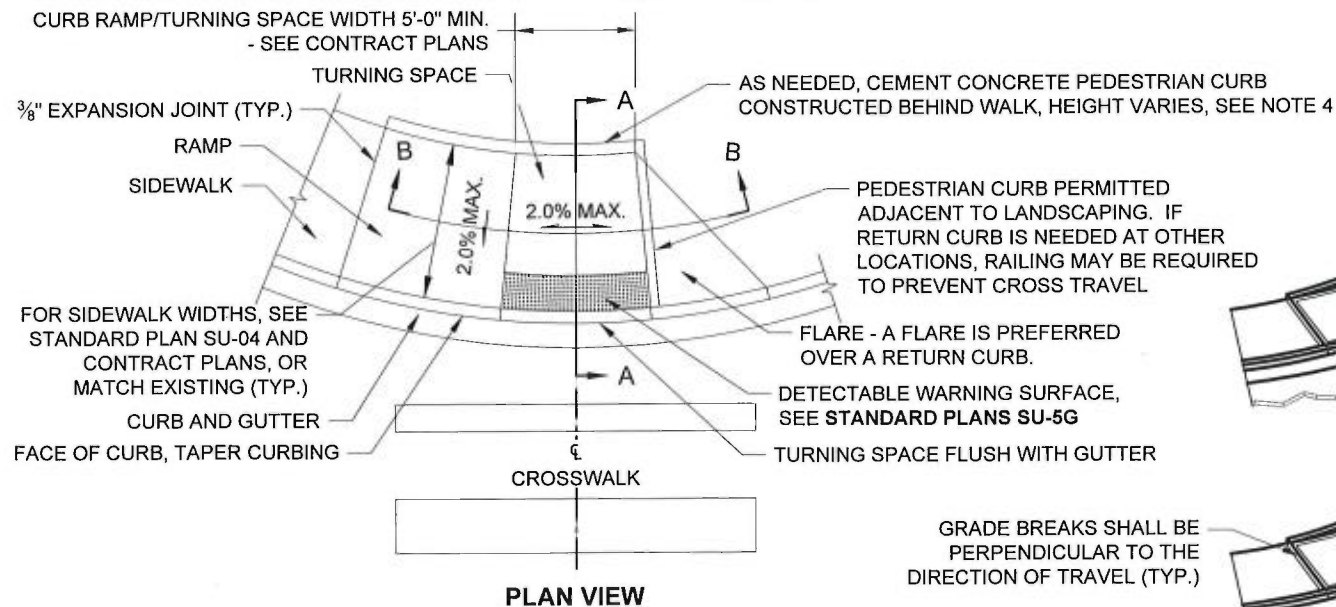
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CITY OF TACOMA

PARALLEL CURB RAMP
TYPE 'A'

STANDARD PLAN NO.

SU-05D

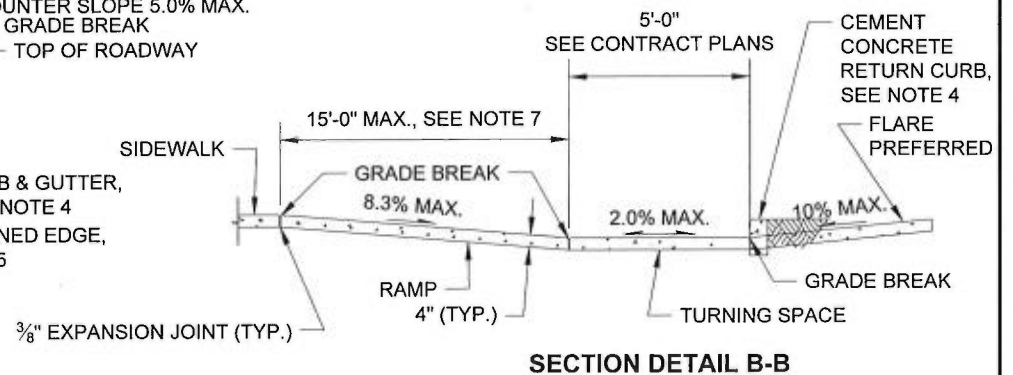


NOTES:

See **Standard Plan SU-05** for
referenced notes

LEGEND

— SLOPE IN EITHER
DIRECTION



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SERVICES

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TACOMA POWER

TACOMA WATER



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CITY ENGINEER

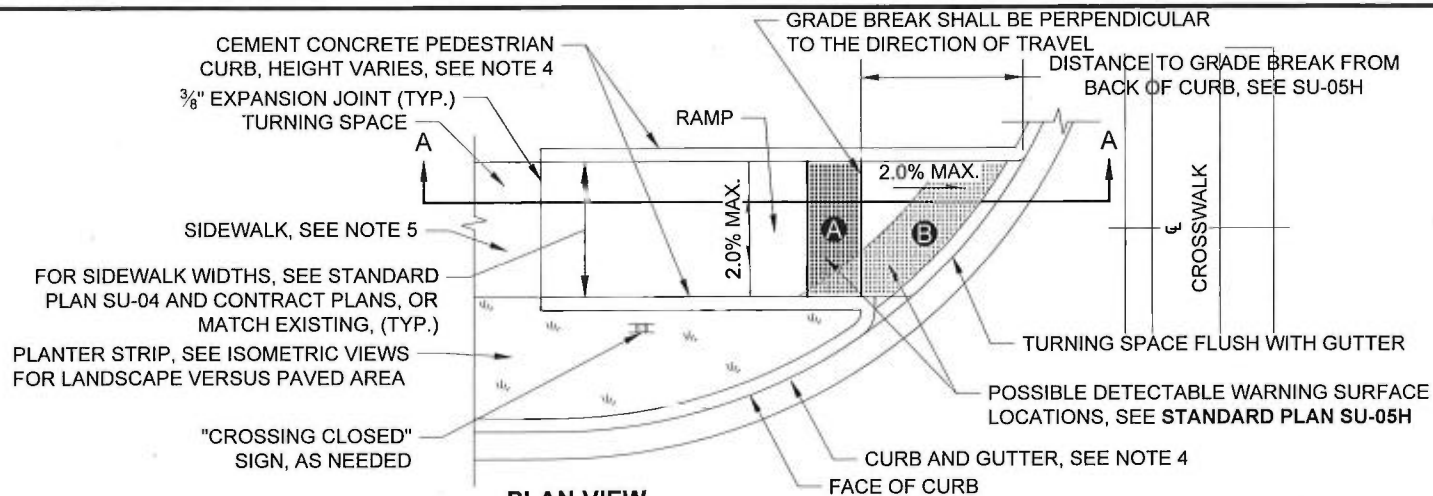
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CITY OF TACOMA

PARALLEL CURB RAMP
TYPE 'B'

STANDARD PLAN NO.

SU-05E



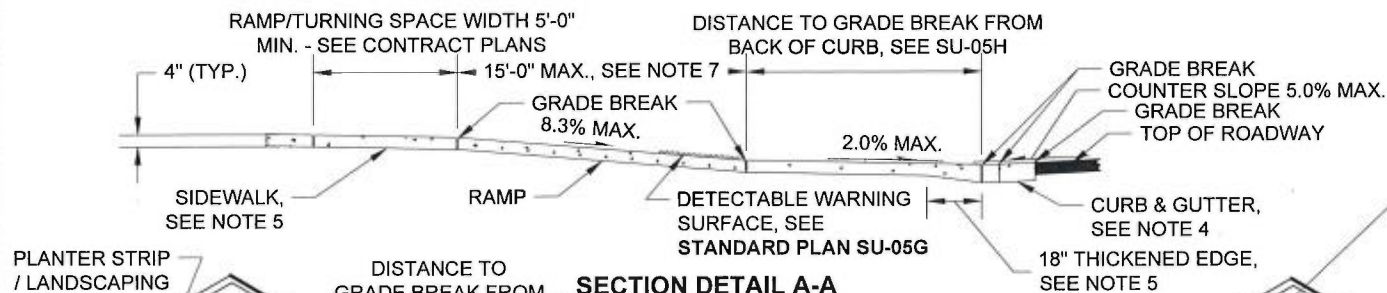
PLAN VIEW

NOTES:

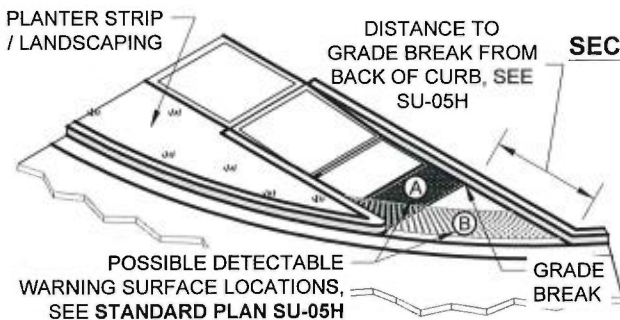
See Standard Plan SU-05 for referenced notes

LEGEND

— SLOPE IN EITHER DIRECTION



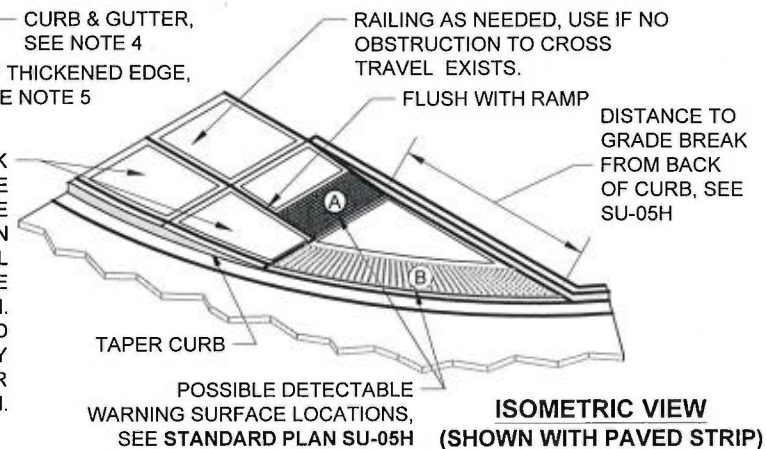
SECTION DETAIL A-A



ISOMETRIC VIEW

(SHOWN WITH PLANTER STRIP/LANDSCAPING)

HARDSCAPED BUFFER SHALL BE DARK GRAY COLORED CEMENT CONCRETE OR HAVE A PATTERN TO INDICATE THE AREA IS OUTSIDE THE PEDESTRIAN ACCESS ROUTE. THE PATTERN SHALL BE SUBMITTED AND APPROVED BY THE CITY, PRIOR TO CONSTRUCTION. ALTERNATE COLORS MAY BE USED WITH PRIOR WRITTEN APPROVAL BY THE CITY'S ADA COORDINATOR PRIOR TO CONSTRUCTION.



ISOMETRIC VIEW

(SHOWN WITH PAVED STRIP)

DCS

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TACOMA WATER



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CITY ENGINEER

DATE

CITY OF TACOMA

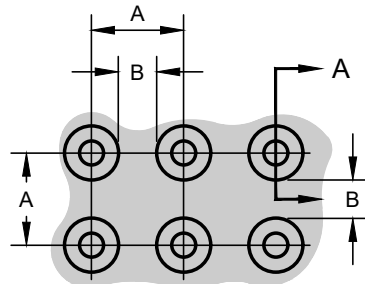
SINGLE DIRECTION CURB RAMP

STANDARD PLAN NO.

SU-05F

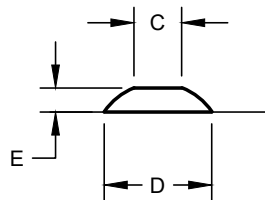
NOTES

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.
3. See **Standard Plans SU-04** through **SU-05F** for sidewalk and curb ramp details.
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.
7. See **Standard Plan SU-05H** for Detectable Warning Surface placement guidelines.



TRUNCATED DOME DETAILS

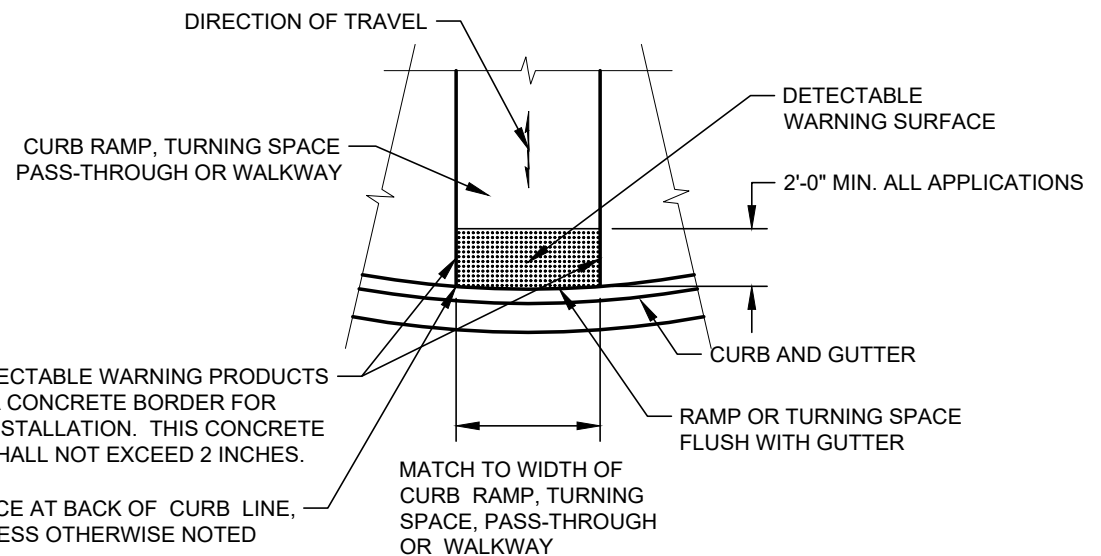
TRUNCATED DOME SPACING



SECTION DETAIL A-A

TRUNCATED DOME

	MIN.	MAX.
A	1.60"	2.40"
B	0.65"	-
C	0.45"	0.90"
D	0.90"	1.40"
E	0.20"	0.20"



DETECTABLE WARNING SURFACE DETAIL

RVDR

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SERVICES

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TACOMA WATER



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Kurtis Deankingsolver

CITY ENGINEER

04/19/2021

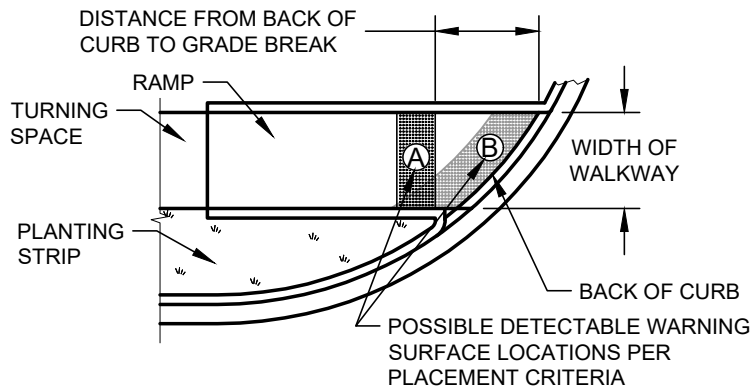
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CITY OF TACOMA

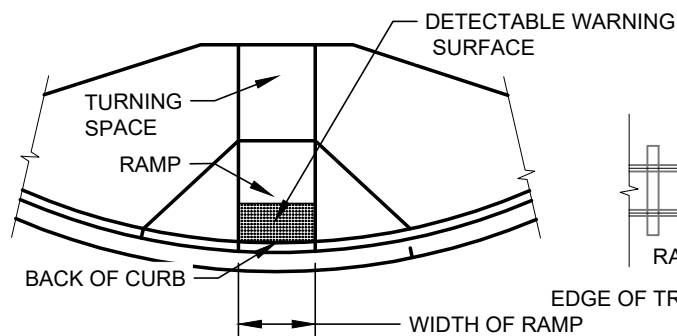
DETECTABLE WARNING SURFACE
DETAILS

STANDARD PLAN NO.

SU-05G

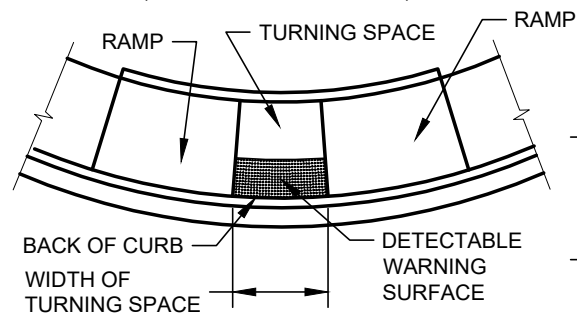


SINGLE DIRECTION CURB RAMP



PERPENDICULAR CURB RAMP

(SEE SU-05A AND SU-05B)



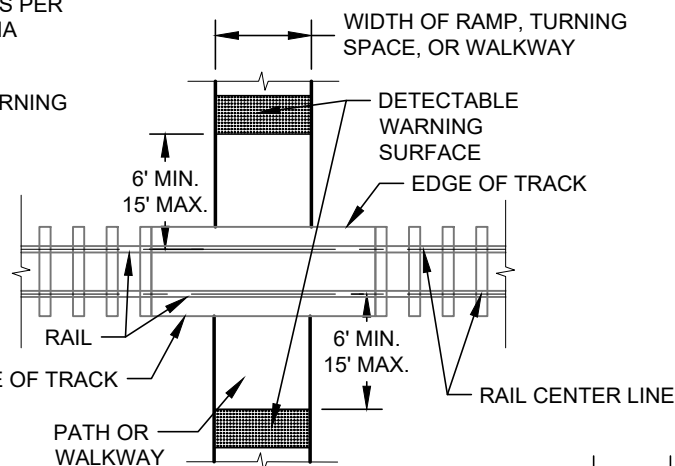
PARALLEL CURB RAMP

(SEE SU-05C, SU-05D, AND SU-05E)

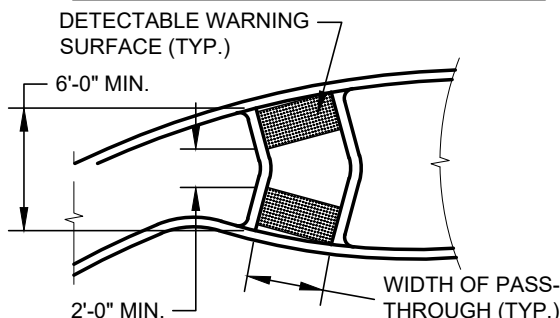
DETECTABLE WARNING PLACEMENT CRITERIA FOR SINGLE DIRECTIONAL CURB RAMP

USE LOCATION (A) IF DISTANCE FROM BACK OF CURB TO GRADE BREAK IS LESS THAN OR EQUAL TO 5 FT.

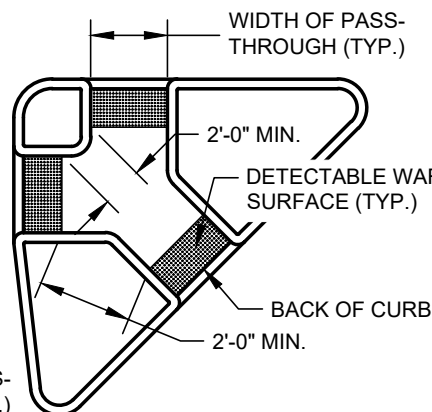
USE LOCATION (B) IF DISTANCE FROM BACK OF CURB TO GRADE BREAK IS GREATER THAN 5 FT.



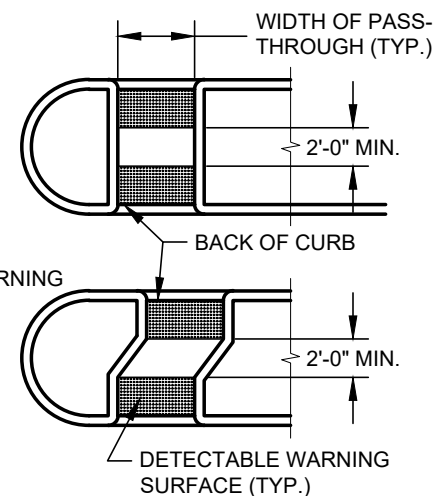
PEDESTRIAN RAILROAD CROSSING



ROUNDABOUT SPLITTER ISLAND



ISLAND PASS-THROUGH



MEDIAN PASS-THROUGH

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.
5. See Standard Plans for sidewalk and curb ramp details.
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.

RVDR

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TACOMA POWER

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Kurtis Deankingsolver

CITY ENGINEER

04/19/2021

DATE

CITY OF TACOMA

DETECTABLE WARNING SURFACE
PLACEMENT GUIDELINES

STANDARD PLAN NO.

SU-05H

R303.3.2 DETECTABLE WARNINGS.
DETECTABLE WARNING SURFACES COMPLYING WITH R304 SHALL BE PROVIDED, WHERE A CURB RAMP, LANDING, OR BLENDED TRANSITION CONNECTS TO A STREET.

R304.1.4 SIZE.
DETECTABLE WARNING SURFACES SHALL EXTEND 24 IN. MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARES), THE LANDING OR, THE BLENDED TRANSITION.

R304.2.1 PERPENDICULAR CURB RAMPS.
WHERE BOTH ENDS OF THE BOTTOM GRADE BREAK COMPLYING WITH R303.3.4 ARE 5.0 FT OR LESS FROM THE BACK OF CURB, THE DETECTABLE WARNING SHALL BE LOCATED ON THE RAMP SURFACE AT THE BOTTOM GRADE BREAK. WHERE EITHER END OF THE BOTTOM GRADE BREAK IS MORE THAN 5.0 FT FROM THE BACK OF CURB, THE DETECTABLE WARNING SHALL BE LOCATED ON THE LOWER LANDING.

R304.2.3 ALIGNMENT.
THE ROWS OF TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP, LANDING, OR BLENDED TRANSITION AND THE STREET.

R303.3.4 GRADE BREAKS.
GRADE BREAKS AT THE TOP AND BOTTOM OF PERPENDICULAR CURB RAMPS SHALL BE PERPENDICULAR TO THE DIRECTION OF RAMP RUN. AT LEAST ONE END OF THE BOTTOM GRADE BREAK SHALL BE AT THE BACK OF CURB. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF CURB RAMPS, BLENDED TRANSITIONS, LANDINGS, AND GUTTER AREAS WITHIN THE PEDESTRIAN ACCESS ROUTE. SURFACE SLOPES THAT MEET THE GRADE BREAKS SHALL BE FLUSH.

CROSSWALK

R303.3.5 COUNTER SLOPES.
THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, LANDING, OR BLENDED TRANSITION SHALL BE 5% MAXIMUM.

R303.2.1.2 CROSS SLOPE.
THE CROSS SLOPE AT INTERSECTIONS SHALL BE 2% MAXIMUM. THE CROSS SLOPE AT MID-BLOCK CROSSING SHALL BE PERMITTED TO BE WARPED TO MEET STREET GRADE.

R303.2.1.4 FLARES.
FLARED SIDES WITH A SLOPE OF 10% MAXIMUM, MEASURED PARALLEL TO THE CURB LINE, SHALL BE PROVIDED WHERE A PEDESTRIAN CIRCULATION PATH CROSSES THE CURB RAMP.

ADVISORY R303.2.1.4 FLARES.
SIDE OF RAMPS MAY BE RETURNED, PROVIDING USEFUL DIRECTIONAL CUES, IF PROTECTED FROM CROSS TRAVEL BY LANDSCAPING, STREET FURNITURE, POLES, OR EQUIPMENT.

NOTE: CITY OF TACOMA PREFERS A RETURN CURB BE USED ONLY ADJACENT TO LANDSCAPING. IF RETURN CURB IS NEEDED AT OTHER LOCATIONS, RAILING MAY BE REQUIRED TO PREVENT CROSS TRAVEL.

R303.2.1.3 LANDING.
A LANDING (4.0 FEET MINIMUM BY 4.0 FEET MINIMUM, 5.0 FEET BY 5.0 FEET PREFERRED) SHALL BE PROVIDED AT THE TOP OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER LANDINGS AND CLEAR SPACE. RUNNING AND CROSS SLOPES AT INTERSECTIONS SHALL BE 2% MAXIMUM.

NOTES:

1. CURB RAMPS SHALL BE LOCATED, CONSTRUCTED OR RETROFITTED IN ACCORDANCE WITH ADA STANDARDS FOR ACCESSIBLE DESIGN, 28 CFR, PART 35 AS SUPPLEMENTED BY THE DRAFT PUBLIC WORKS RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG), THE CITY OF TACOMA STANDARD PLANS AND THE CITY'S CURB RAMP INSTALLATION MATRIX.

2. 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 6 YEARS. COORDINATE WITH PUBLIC WORKS - ENGINEERING, TRAFFIC SECTION.

R303.22 REFERENCE TO PROWAG SECTION, 2005 DRAFT RULE (IDENTIFIED AS CURRENT BEST PRACTICE IN ACCESSIBLE PEDESTRIAN DESIGN UNDER FHWA FEDERAL AID (504) REGULATION).

 TAPER CURB

TRANSITION PANEL FROM RAMP TO EXISTING SIDEWALK (WHERE REQUIRED TO MATCH EXISTING SIDEWALK CROSS SLOPE). MAXIMUM GRADES ARE NOT SPECIFIED BY PROWAG. ADJUST LENGTH AS NEEDED TO PROVIDE SMOOTH TRANSITION. IF PROPOSED MATCH LINE LOCATION DOES NOT FALL ON AN EXISTING JOINT IN THE SECTION OF SIDEWALK TO REMAIN, THE EXISTING WALK SHALL BE REMOVED BACK TO THE NEXT JOINT (MINIMUM 2 FEET).

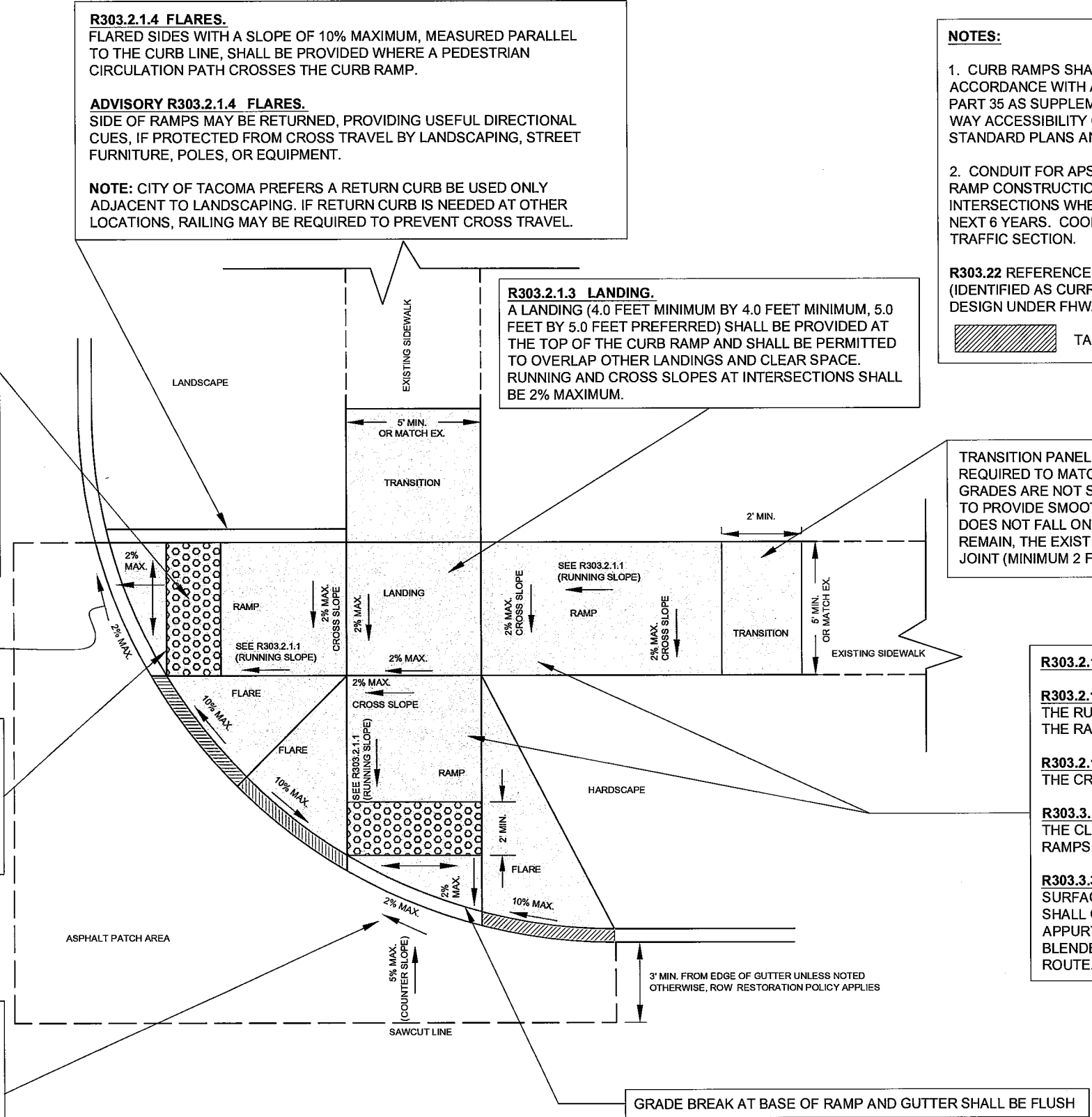
R303.2.1 PERPENDICULAR CURB RAMPS.

R303.2.1.1 RUNNING SLOPE.
THE RUNNING SLOPE SHALL BE 8.3% MAXIMUM BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15.0 FEET.

R303.2.1.2 CROSS SLOPE.
THE CROSS SLOPE SHALL BE 2% MAXIMUM.

R303.3.1 WIDTH.
THE CLEAR WIDTH OF LANDINGS, BLENDED TRANSITIONS, AND CURB RAMPS, EXCLUDING FLARES, SHALL BE 4.0 FEET MINIMUM.

R303.3.3 SURFACES.
SURFACES OF CURB RAMPS, BLENDED TRANSITIONS, AND LANDINGS SHALL COMPLY WITH R301. GRATINGS, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON CURB RAMPS, LANDINGS, BLENDED TRANSITIONS AND GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.



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CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

PROWAG GUIDELINES
TYPICAL PERPENDICULAR CURB RAMP
DESIGN STANDARDS
STANDARD PLAN NO. SU-05I

R303.2.2 PARALLEL CURB RAMPS.

R303.2.2.1 RUNNING SLOPE.

THE RUNNING SLOPE SHALL BE 8.3% MAXIMUM BUT SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15.0 FEET.

R303.2.1.2 CROSS SLOPE.

THE CROSS SLOPE SHALL BE 2% MAXIMUM.

R303.3.1 WIDTH.

THE CLEAR WIDTH OF LANDINGS, BLENDED TRANSITIONS, AND CURB RAMPS, EXCLUDING FLARES, SHALL BE 4.0 FEET MINIMUM.

R303.3.3 SURFACES.

SURFACES OF CURB RAMPS, BLENDED TRANSITIONS, AND LANDINGS SHALL COMPLY WITH R301. GRATINGS, ACCESS COVERS, AND OTHER APPURTENANCES SHALL NOT BE LOCATED ON CURB RAMPS, LANDINGS, BLENDED TRANSITIONS AND GUTTERS WITHIN THE PEDESTRIAN ACCESS ROUTE.

R303.3.2 DETECTABLE WARNINGS.

DETECTABLE WARNING SURFACES COMPLYING WITH R304 SHALL BE PROVIDED, WHERE A CURB RAMP, LANDING, OR BLENDED TRANSITION CONNECTS TO A STREET.

R304.1.4 SIZE.

DETECTABLE WARNING SURFACES SHALL EXTEND 24 IN. MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARES), THE LANDING OR, THE BLENDED TRANSITION.

R304.2.3 ALIGNMENT.

THE ROWS OF TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP, LANDING, OR BLENDED TRANSITION AND THE STREET.

R303.3.4 GRADE BREAKS.

GRADE BREAKS AT THE TOP AND BOTTOM OF PERPENDICULAR CURB RAMPS SHALL BE PERPENDICULAR TO THE DIRECTION OF RAMP RUN. AT LEAST ONE END OF THE BOTTOM GRADE BREAK SHALL BE AT THE BACK OF CURB. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF CURB RAMPS, BLENDED TRANSITIONS, LANDINGS, AND GUTTER AREAS WITHIN THE PEDESTRIAN ACCESS ROUTE. SURFACE SLOPES THAT MEET THE GRADE BREAKS SHALL BE FLUSH.

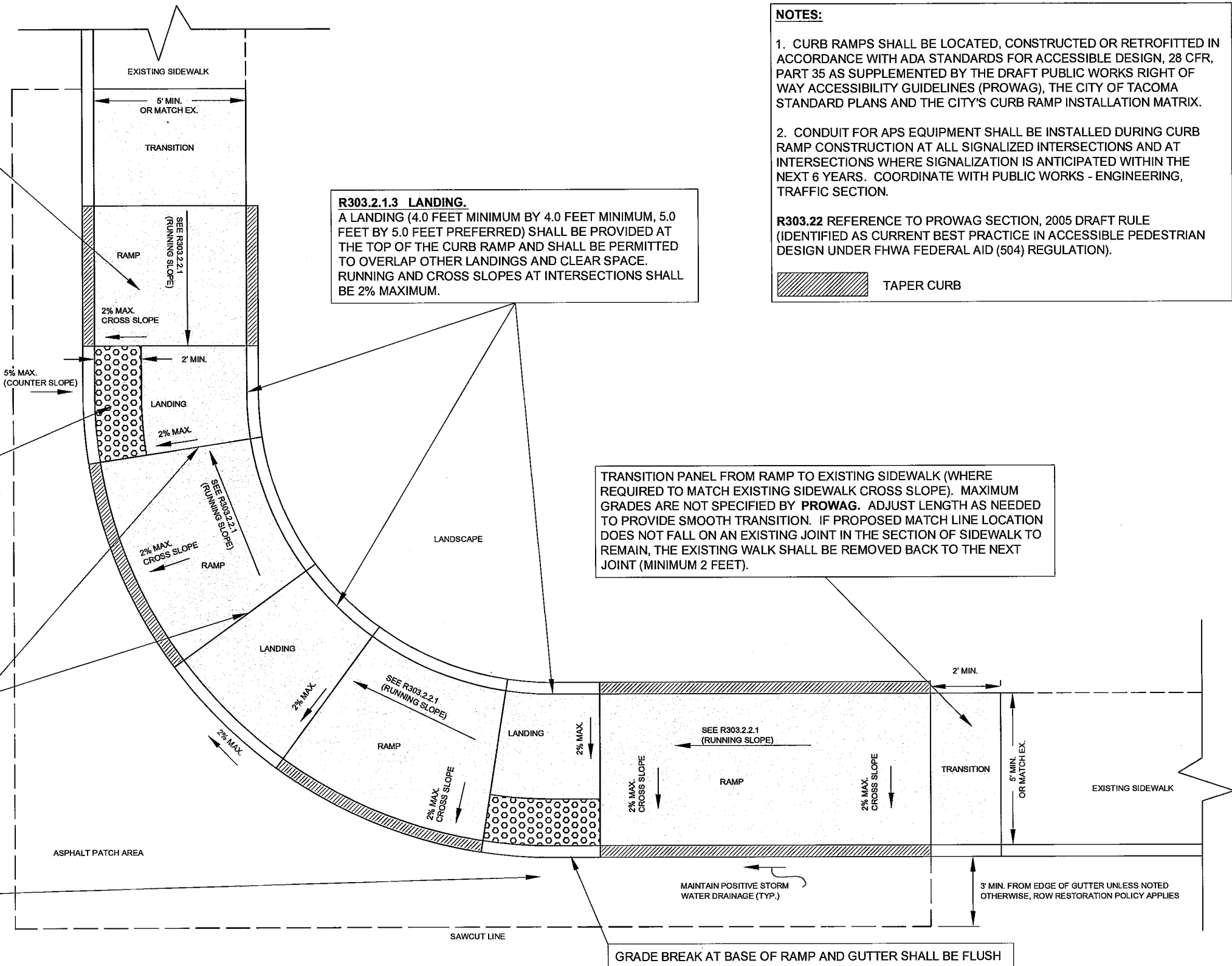
CROSSWALK.

R303.3.5 COUNTER SLOPES.

THE COUNTER SLOPE OF THE GUTTER OR STREET AT THE FOOT OF A CURB RAMP, LANDING, OR BLENDED TRANSITION SHALL BE 5% MAXIMUM.

R303.2.1.2 CROSS SLOPE.

THE CROSS SLOPE AT INTERSECTIONS SHALL BE 2% MAXIMUM. THE CROSS SLOPE AT MID-BLOCK CROSSING SHALL BE PERMITTED TO BE WARPED TO MEET STREET GRADE.



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**CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS**

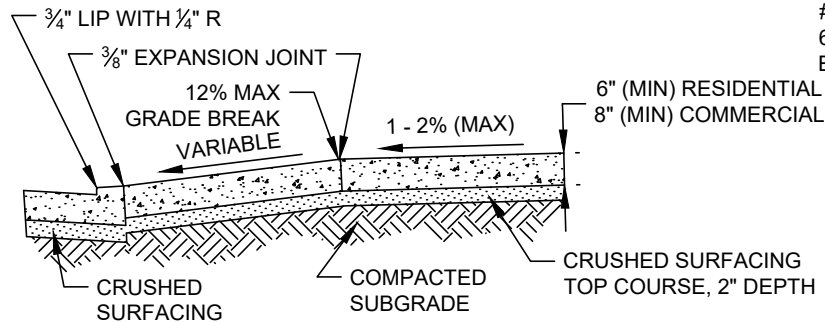
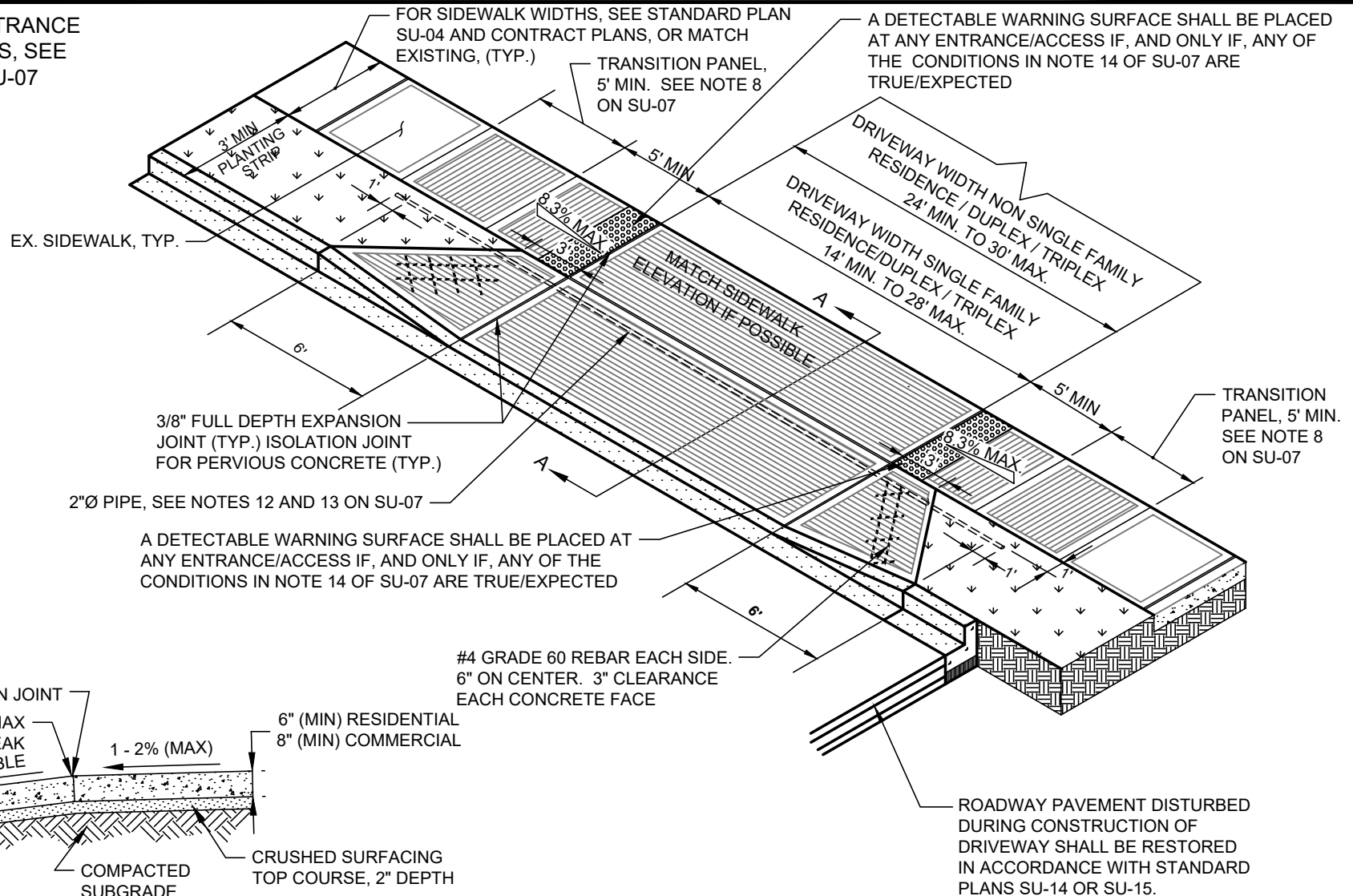
**PROWAG GUIDELINES
TYPICAL PARALLEL CURB RAMP
DESIGN STANDARDS
STANDARD PLAN NO. SU-05J**

NOTES

1. Use the following as a guide of when each Entrance or Access Type should be used:
 - 1.a. Cement Concrete Driveway Entrances Type 1 (Entrances) or Accesses Type 1 (Accesses) shall be used at driveways where the planting strip width is 3' or greater. See Standard Plan SU-07A.
 - 1.b. Cement Concrete Driveway Entrances Type 2 (Entrances) or Access Type 2 (Accesses) shall be used at driveways and alleys where the planting strip is less than 3' wide. See Standard Plan SU-07B.
 - 1.c. Cement Concrete Alley Entrance Type 3 (Entrances) or Accesses Type 3 (Accesses) shall be used at alleys where the planting strip is 3' wide or greater. See Standard Plan SU-07C.
 - 1.d. New proposed planter widths shall be 5' min, with Type 1 Driveway Entrance or Type 3 Alley Entrance
2. Standard Concrete shall be a minimum compressive strength of 3,000 PSI.
3. Concrete Joints:
 - 3.a. All joints shall be cleaned & edged.
 - 3.b. All expansion or isolation joints shall be full depth.
 - 3.c. External joints to the driveway shall be 1/2" radius. Internal joints to the driveway shall be 1/4" radius.
 - 3.d. 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 Section 5-03.
4. Entrances and Accesses wider or narrower than shown on this plan require approval of the Director of Public Works.
5. Entrances and Accesses shall have a brushed finish in a transverse direction to the center line of Entrance or Access.
6. Entrances or Accesses wider than 20' require a center line expansion joint.
7. When trenching through an Entrance or Access:
 - 7.a. If Entrance or Access is 20' or less in width, full replacement is required.
 - 7.b. If Entrance or Access is greater than 20' in width, a minimum 2' wide cut back over undisturbed soil is required and replacement shall extend to the nearest control joint.
8. Transition panels are required when a new driveway entrance or access matches into a sidewalk with a cross slope greater than 2%. Transition panels shall be a minimum of 5' in length.
9. For Entrances or Accesses within the North Slope Historical District area use Standard Plan HD-NS02. See Standard Plan HD-NS01 for map of Historical District area limits.
10. Permeable surfacing may be allowed for Entrances or Accesses. Refer to Standard Plans PD-01 and PD-02 as applicable. Do not compact subgrade for permeable surfacing and refer to APWA GSP 2-06.3(3) Subgrade for Permeable Pavements. A soils report is required and modeling may be necessary per SWMM BMP L633.
11. Geomembrane barrier required between standard and permeable sections. Refer to City of Tacoma Standard Plan GSI-18.
12. Refer to Tacoma Municipal Code 10.14, driveways for additional information.
13. A 2" Ø PVC Sch. 80 Pipe with capped ends shall be installed as shown, per TMC 10.14.070. Pipe shall be buried 24 inches below finished grade and have a pull string and location wire per WSDOT 9-29
14. A detectable warning surface shall be placed at any Entrance or Access if, and only if, any of the following are true/expected:
 - The Average Daily Traffic of the alley/driveway is greater than 700 or is reasonably expected to exceed 700 vehicles per typical day upon future development, such as alleys in regional growth centers and mixed-use centers where zoning supports significant growth.
 - It is located in a high pedestrian use area such as, a designated pedestrian street in a mixed-use center, or a school walking route.
 - A safety concern is documented by the City Traffic Engineer.
15. The detectable warning pattern, if needed, shall be placed the full width of the sidewalk in accordance with City of Tacoma Standard Plan SU-05A.
16. When an existing entrance or access does not meet current ADA standards as defined by the City of Tacoma's Design Manual, the entire entrance or access shall be replaced to current ADA standards.

<div style="text-align: center;"> RVDR PUBLIC WORKS TACOMA POWER </div>	<div style="text-align: center;"> REVIEWED BY EW ENVIRONMENTAL SERVICES TACOMA WATER </div>		<div style="text-align: center;"> APPROVED FOR PUBLICATION DocuSigned by: CIVIL ENGINEER <div style="display: flex; justify-content: space-between;"> 10/02/2022 DATE </div> </div>	CITY OF TACOMA NOTES FOR CEMENT CONCRETE DRIVEWAY AND ALLEY ENTRANCE OR ACCESS STANDARD PLAN NO. SU-07
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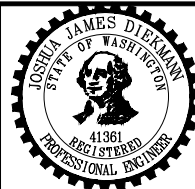
FOR DRIVEWAY ENTRANCE
AND ACCESS NOTES, SEE
STANDARD PLAN SU-07



NOTE: DESIGNED SECTION REQUIRED FOR PERMEABLE
SURFACING. SEE NOTES 10 AND 11 ON SU-07.

STANDARD CONCRETE SECTION DETAIL A-A

DS RVDR	NTS REVIEWED BY EW
DS PUBLIC WORKS	DS ENVIRONMENTAL SERVICES
DS TACOMA POWER	DS TACOMA WATER



APPROVED FOR PUBLICATION

DocuSigned by:

[Signature]

CITY ENGINEER

10/02/2022

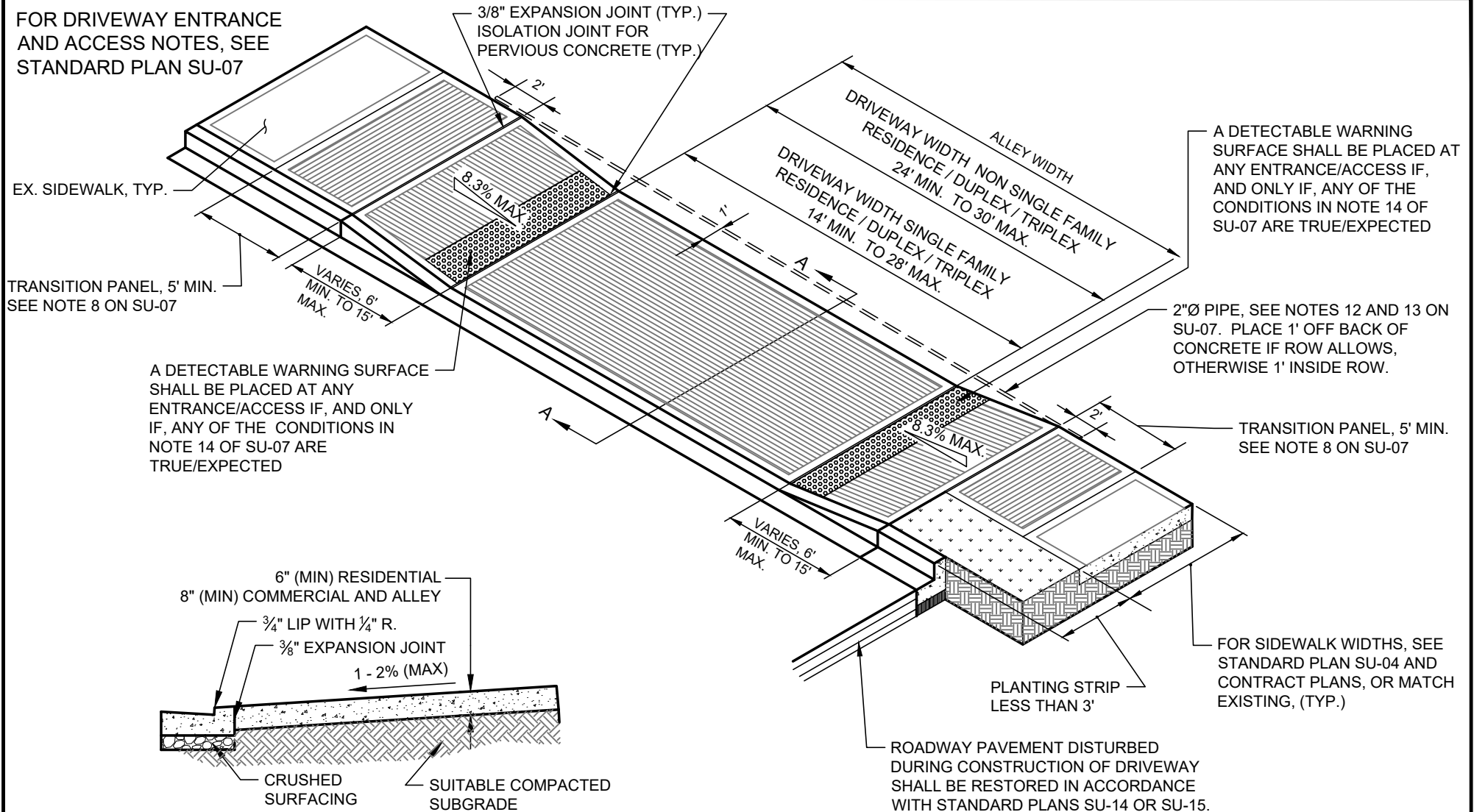
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CITY OF TACOMA
CEMENT CONCRETE DRIVEWAY
ENTRANCE AND ACCESS
TYPE 1

STANDARD PLAN NO.

SU-07A

FOR DRIVEWAY ENTRANCE
AND ACCESS NOTES, SEE
STANDARD PLAN SU-07



NOTE: DESIGNED SECTION REQUIRED FOR PERMEABLE
SURFACING. SEE NOTES 10 AND 11 ON SU-07.

STANDARD CONCRETE SECTION DETAIL A-A

<p>DS RVDR PUBLIC WORKS DS TACOMA POWER</p>		<p>DS REVIEWED BY EW ENVIRONMENTAL DS SERVICES TS TACOMA WATER</p>		<p>NTS</p> <p>JOSIEA JAMES DEANMAN STATE OF WASHINGTON 41361 REGISTERED PROFESSIONAL ENGINEER</p>		<p>APPROVED FOR PUBLICATION</p> <p>DocuSigned by: CITY ENGINEER</p> <p>12/01/2022 DATE</p>		<p>CITY OF TACOMA CEMENT CONCRETE ALLEY ENTRANCE AND ACCESS TYPE 2</p> <p>STANDARD PLAN NO. SU-07B</p>	
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FOR SIDEWALK WIDTHS, SEE STANDARD
PLAN SU-04 AND CONTRACT PLANS, OR
MATCH EXISTING, (TYP.)

#4 GRADE 60 REBAR EACH SIDE, 6"
ON CENTER, 3" CLEARANCE EACH
CONCRETE FACE

2"Ø PIPE, SEE NOTES
12 AND 13 ON SU-07

- A DETECTABLE WARNING SURFACE SHALL BE PLACED AT ALLEY ENTRANCES IF, AND ONLY IF, ANY OF THE CONDITIONS IN NOTE 14 OF SU-07 ARE TRUE/EXPECTED

Diagram illustrating the components and widths of a curb and gutter cross-section:

- ALLEY PAVING WIDTH
- BACK OF WEDGE CURB TO BACK OF WEDGE CURB
- ASPHALT WED
- CURB TRANSIT
- MATCH S

— A DETECTABLE WARNING SURFACE SHALL BE PLACED AT ALLEY ENTRANCES IF, AND ONLY IF, ANY OF THE CONDITIONS IN NOTE 14 OF SU-07 ARE TRUE/EXPECTED

— EX. SIDEWALK, TYP.

Diagram illustrating a road cross-section with a 12% MAX GRADE BREAK. The road surface is composed of CRUSHED SURFACING over a SUITABLE COMPACTED SUBGRADE. The road width is 8" (MIN). The road has a 3/4" LIP WITH 1/4" R. and a 3/8" EXPANSION JOINT. The grade is VARIABLE, and the approach slope is 1 - 2% (MAX).

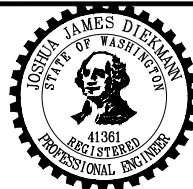
STANDARD CONCRETE SECTION DETAIL A-A

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SERVICES

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10/02/2022

DATE _____

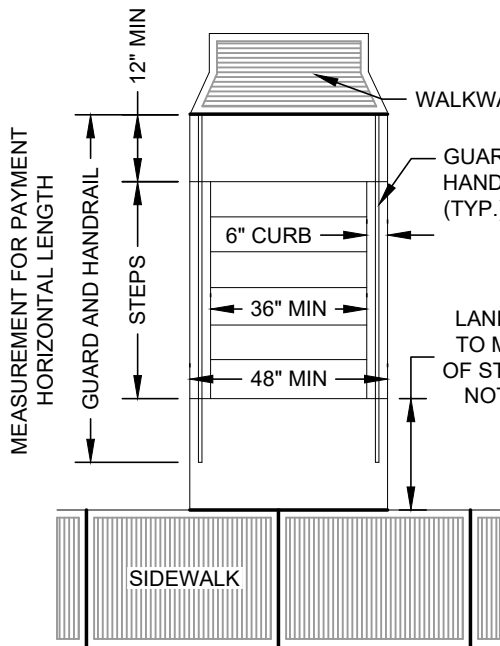
CITY OF TACOMA
CEMENT CONCRETE ALLEY
ENTRANCE AND ACCESS
TYPE 3

STANDARD PLAN NO.

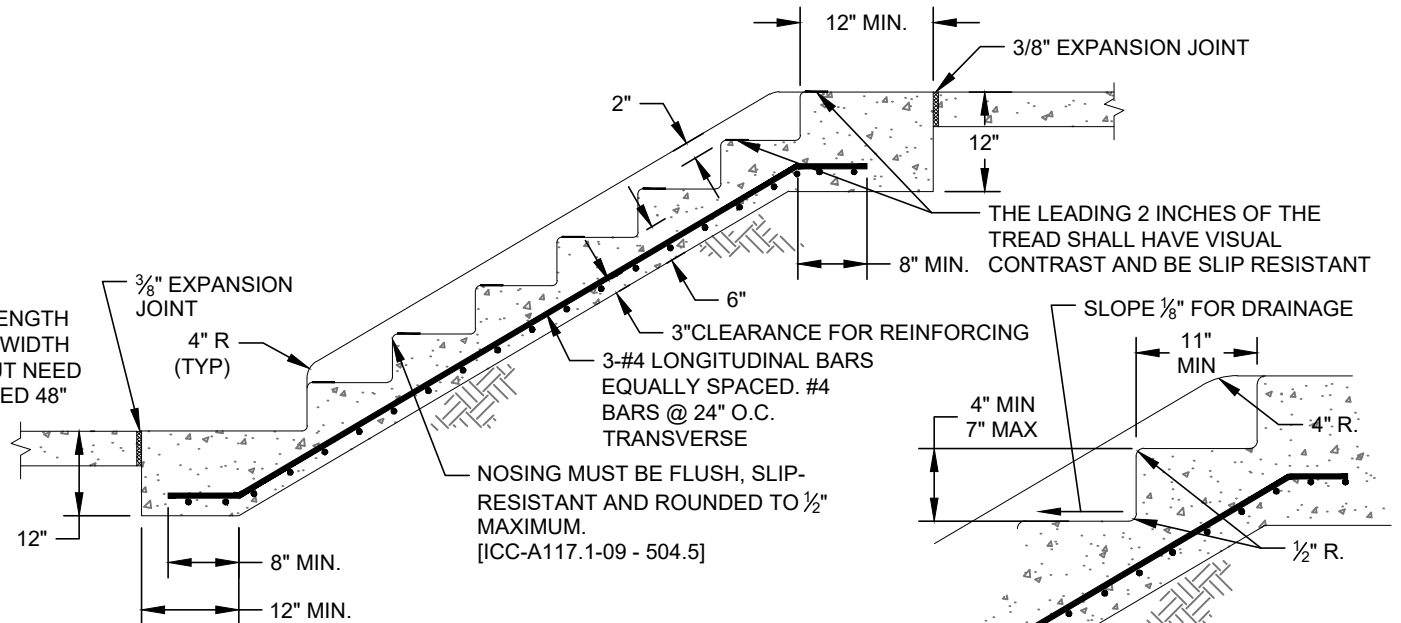
SU-07C

NOTES

- Stairways, handrails & guards shall comply with the most current version of the International Building Code (IBC) and associated amendments, except as allowed by the Tacoma Municipal Code Title 2 Chapter 2 Section 2.01.060
- For stairway guard and handrail details, refer to Standard Plan No. SU-11.
- The minimum thickness of the stairway shall be 6" as measured along the shortest line perpendicular to the slope of the stairs or the total required for coverage of steel reinforcement, whichever is greater. The stairway needs to be provided with the minimum steel, based on temperature & shrinkage as set forth in the ACI code. Clearances to the concrete surfaces from the reinforcement is spelled out in ACI 318-05 Section 7.7 as follows:
 - Concrete cast against and permanently exposed to earth: 3" clearance for reinforcing
 - Concrete exposed to earth or weather (formed):
 - #6 through #18 Bars: 2" clearance for reinforcing
 - #5 bar, W31 or D31 wire, and smaller: 1.5" clearance for reinforcing
 - Concrete not exposed to weather or in contact with the ground:
 - Slabs, walls, joists:
 - #14 & #18 bars: 1.5" clearance for reinforcing
 - #11 bar and smaller: 0.75" clearance for reinforcing
- Concrete shall be a minimum compressive strength of 3,000 psi.
- According to ACI 318-05 7.12.2.2 - Shrinkage and temperature reinforcement shall be spaced not farther apart than five times the slab thickness, nor farther apart than 18".
- Slab reinforcing according to ACI 318-05 Section 7.12.2.1 shall provide the following ratios of reinforcement areas to gross concrete area, but not less than 0.0014:
 - Slabs where Grade 40 or 50 deformed bars are used - 0.0020
 - Slabs where Grade 60 deformed bars or welded wire reinforcement are used - 0.0018
 - Slabs where reinforcement with yield stress exceeding 60,000 psi measured at a yield strain of 0.35 percent is used 0.0018 X 60,000/fy
- Stair treads and risers shall be of uniform size and shape.
- Where the stairway has a straight run, the depth of the landing need not exceed 48 inches. (IBC 1011.6). Landings are required at the top and bottom of stairways.
- Where the bottom or top riser adjoins a sloping public way, walkway or driveway having an established grade and serving as a landing, the bottom or top riser is permitted to be reduced along the slope to less than 4 inches (102 mm) in height, with the variation in height of the bottom or top riser not to exceed one unit vertical in 12 units horizontal (8% slope) of stairway width.



PLAN



SECTION

STEP DETAIL

RVDR

REVIEWED BY

EW

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TACOMA WATER



APPROVED FOR PUBLICATION

kurtis kingsolver

CITY ENGINEER

04/19/2021

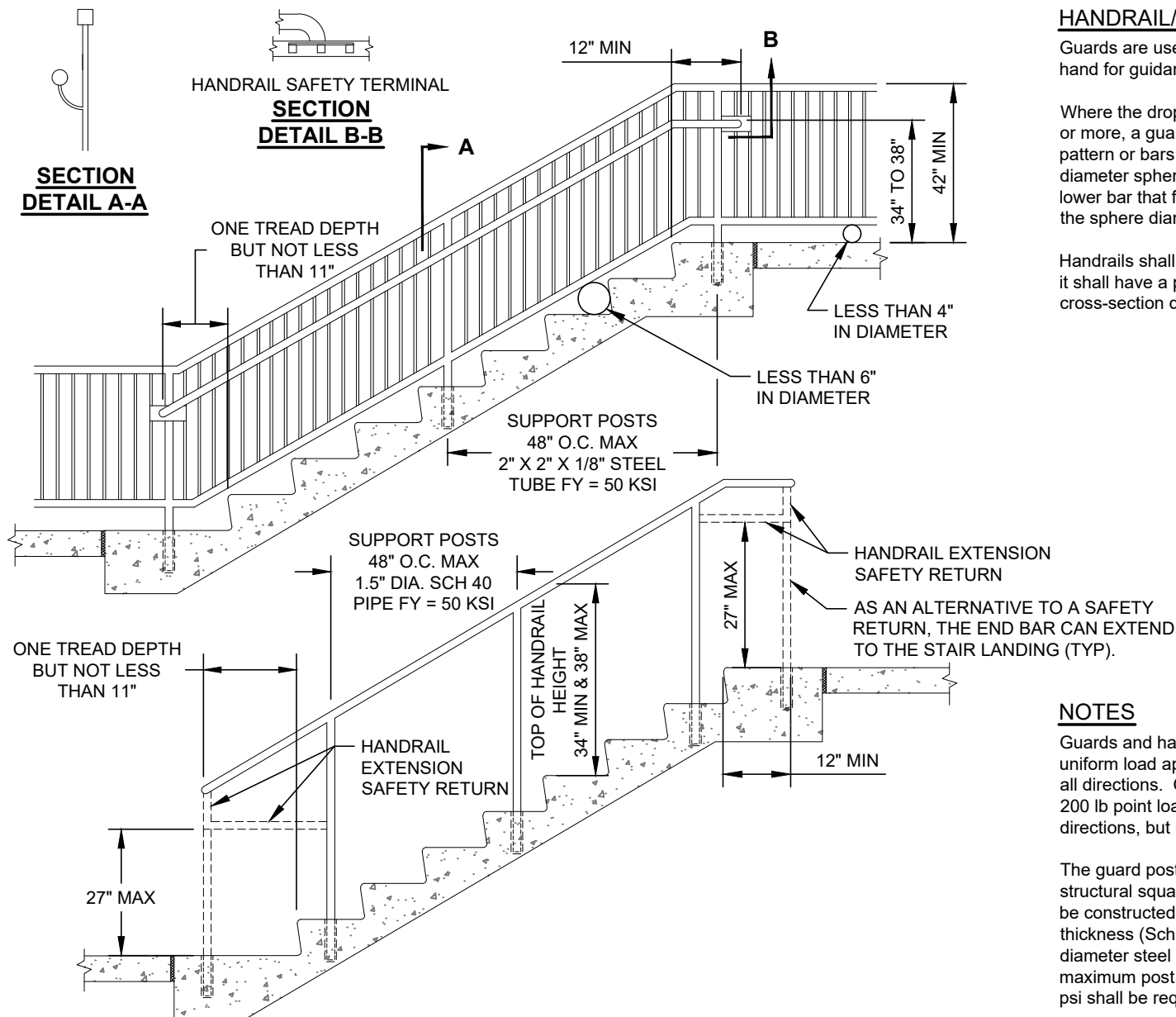
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CITY OF TACOMA

CEMENT CONCRETE STAIRWAY

STANDARD PLAN NO.

SU-10



HANDRAIL/GUARD COMBINATION:

Guards are used for fall protection. Handrails are for grasping by the hand for guidance and support.

Where the drop off from the side of the stair or walking surface is 30" or more, a guard is required in addition to the handrail. Intermediate pattern or bars shall be provided within the guard to prevent a 4" diameter sphere from passing through, except where the guard has a lower bar that forms a triangle with the stair riser and the tread, here the sphere diameter can be increased to less than 6".

Handrails shall have an outside diameter of 1 1/4" to 2". If not circular, it shall have a perimeter dimension of 4" to 6 1/4" with a maximum cross-section dimension of 2 1/4".

HANDRAIL:

Stairways shall have handrails on each side (IBC 1011.11), except as allowed by the Tacoma Municipal Code Title 2 Chapter 2 Section 2.01.060

Handrails shall return to a wall, guard, or the walking surface, or shall be continuous to the handrail of an adjacent flight of stairs or ramp run.

Where handrails are not continuous between flights, the handrails for the top extension at stairs shall extend horizontally, not less than 12 inches, beyond the top riser, and the handrails for the bottom extension at stairs shall extend for a horizontal distance equal to one tread depth beyond the bottom tread nosing.

NOTES

Guards and handrails shall be designed to carry a 50 lbs/linear foot uniform load applied to the top bar of the guard or handrail in any and all directions. Guards and handrails shall also be designed to carry a 200 lb point load at any location along the top bar in any and all directions, but not simultaneously with the uniform load.

The guard posts and top rail can be constructed of 2" X 2" X 0.125" structural square tube, and a post spacing of 60" maximum. Or it can be constructed of 1.5" nominal diameter steel pipe with a 0.145" wall thickness (Sch 40) with a 42" maximum post spacing, or 1.5" nominal diameter steel pipe with a 0.20" wall thickness (Sch 80) with a 48" maximum post spacing. In all cases a steel yield strength of $f_y=50,000$ psi shall be required.

RVDR

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Kurtis Deankingsolver

CITY ENGINEER

04/19/2021

DATE

CITY OF TACOMA

PEDESTRIAN RAILINGS
GUARDS AND HANDRAILS

STANDARD PLAN NO.

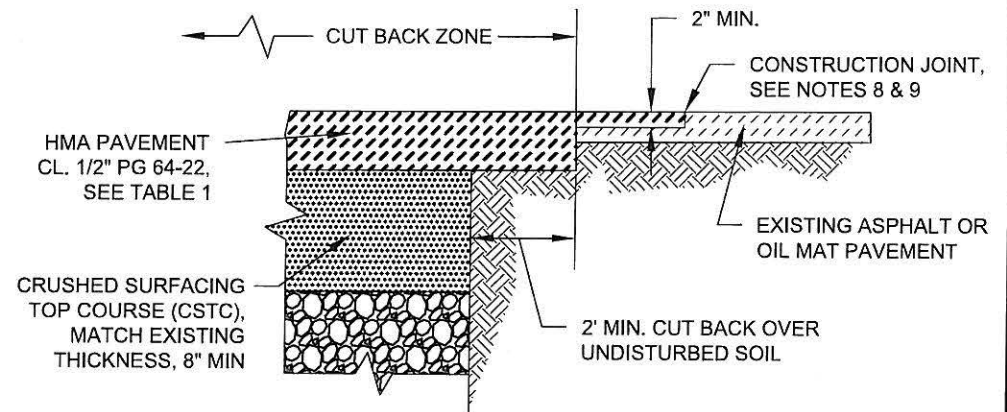
SU-11

NOTES

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).
 Residential 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 5-05.3(8)B for cement 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 PAVEMENT REPLACEMENT DEPTH IN CUT BACK ZONE		
	MIN.	MAX.
ARTERIALS, INDUSTRIAL AREAS & ROADS WITH BUS TRAFFIC	MATCH EXISTING +1", OR 4", WHICHEVER IS GREATER	6"
RESIDENTIALS AND ALLEYS	MATCH EXISTING +1", OR 3", WHICHEVER IS GREATER	4"



CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

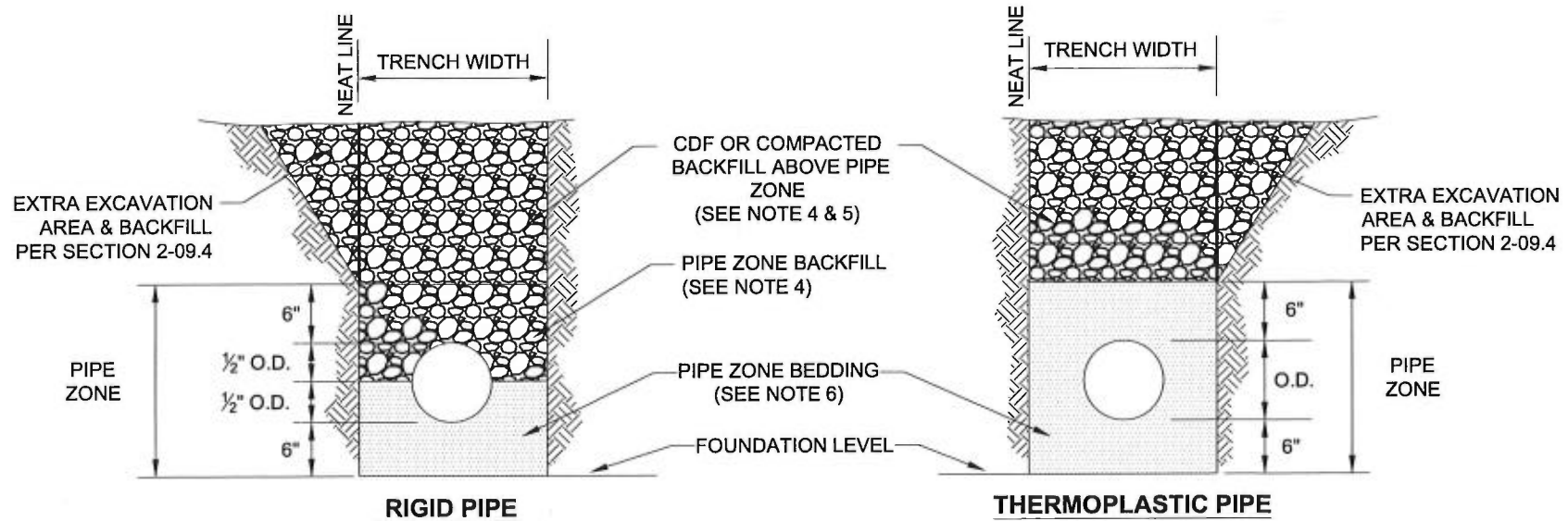
APPROVED FOR PUBLICATION

James Ramsey
CITY ENGINEER

12 Jun 2009
DATE

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

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GMS

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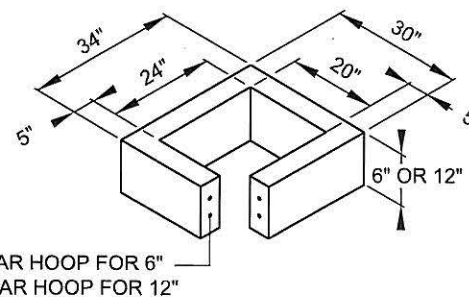
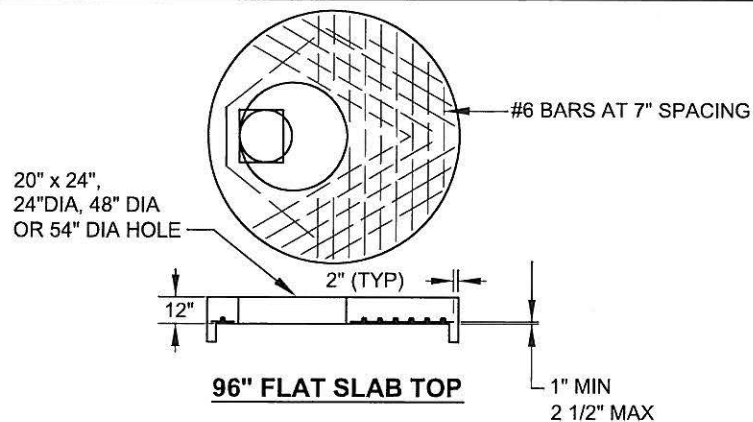
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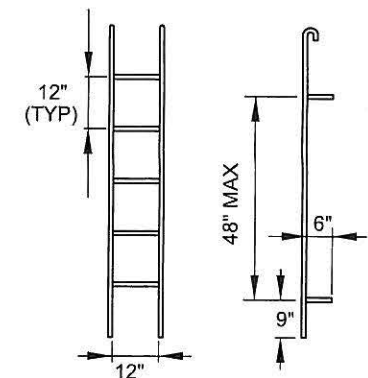
CITY OF TACOMA
PIPE ZONE BEDDING AND BACKFILL
FOR SANITARY AND STORM
SEWERS

STANDARD PLAN NO.

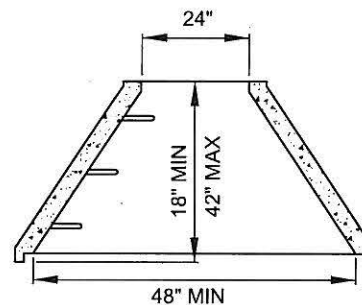
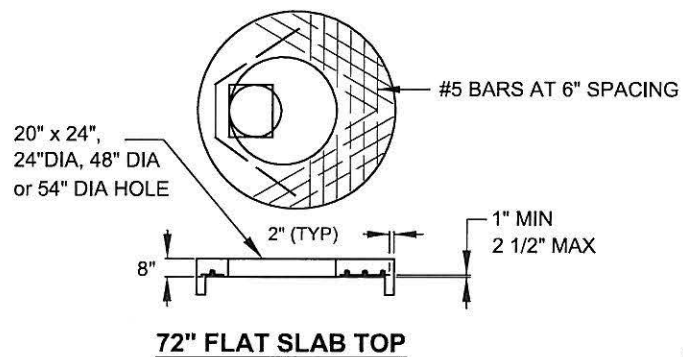
SU-16



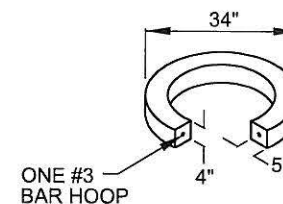
**RECTANGULAR ADJUSTMENT
SECTION**



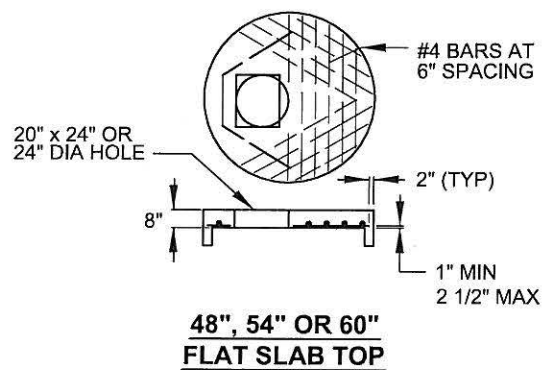
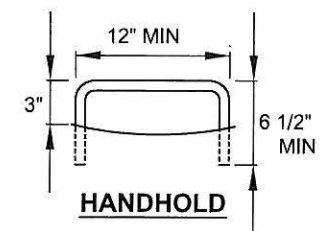
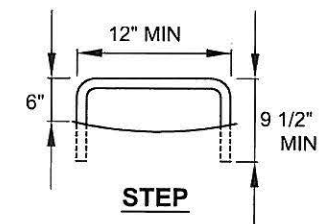
PREFABRICATED LADDER



CONCENTRIC CONE SECTION



**CIRCULAR ADJUSTMENT
SECTION**



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.

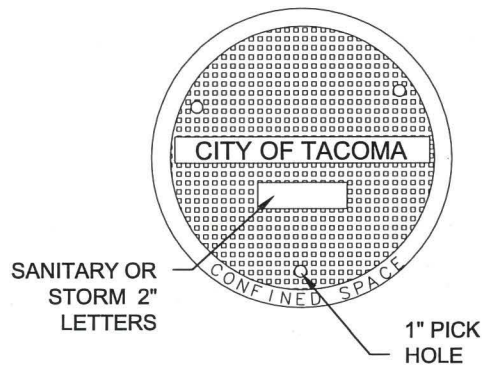
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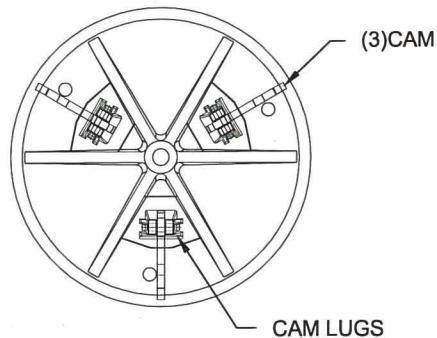
James Pervey
CITY ENGINEER

12 Jun 2009
DATE

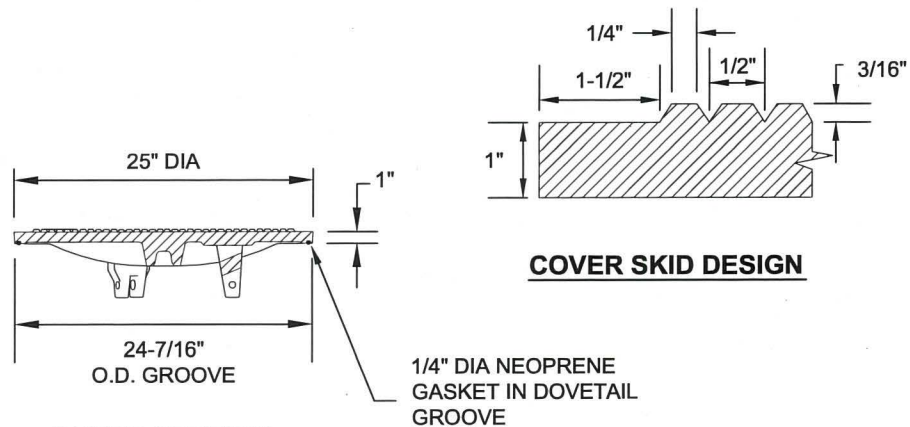
MISCELLANEOUS DETAILS
FOR MANHOLES AND
CATCH BASINS
STANDARD PLAN NO. SU-21



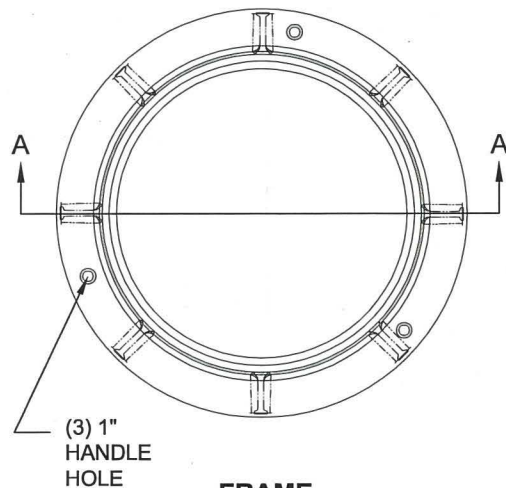
PLAN VIEW



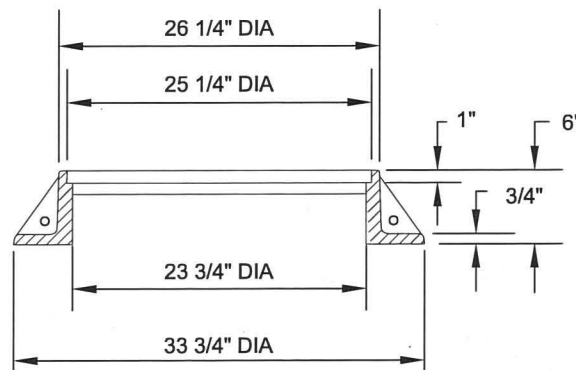
BOTTOM VIEW



COVER SECTION



FRAME



SECTION A-A

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.

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

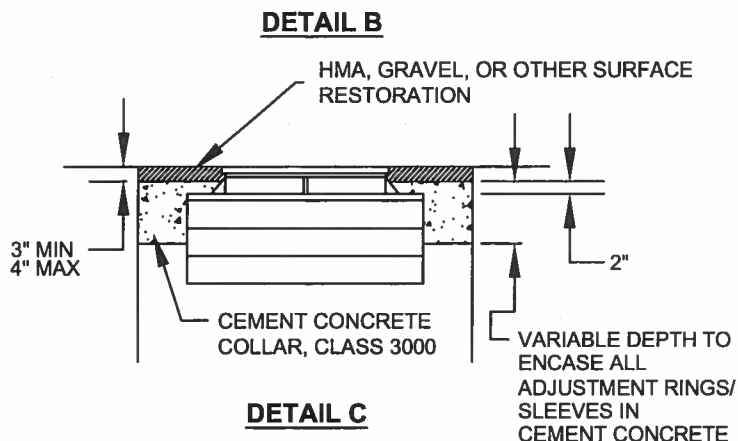
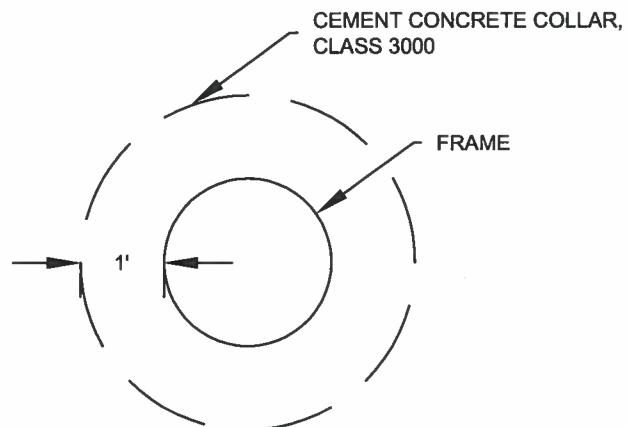
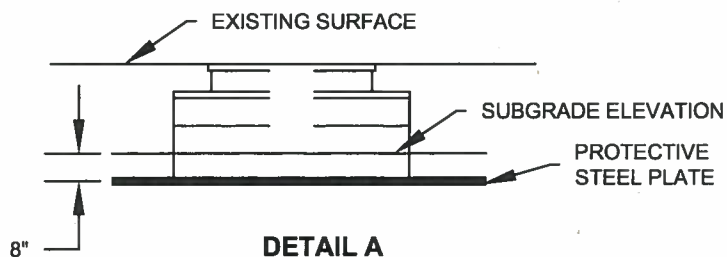
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CITY ENGINEER

1/17/04
DATE

MANHOLE FRAME AND COVER

STANDARD PLAN NO. SU-22



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.

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

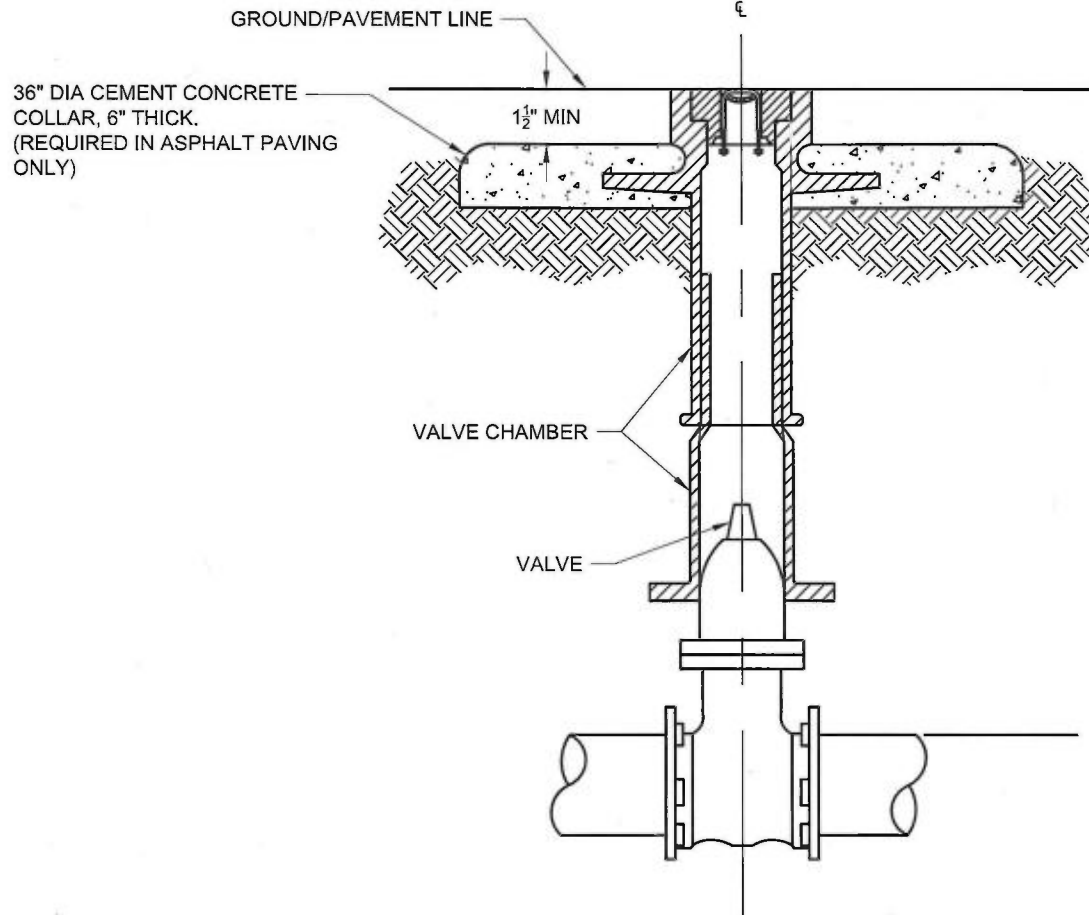
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CITY ENGINEER

DATE

UTILITY ADJUSTMENT

STANDARD PLAN NO. SU-25



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.

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DCS
PUBLIC WORKS

ENVIRONMENTAL
SERVICES

N/A
TACOMA POWER

G.W.
TACOMA WATER



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CITY ENGINEER

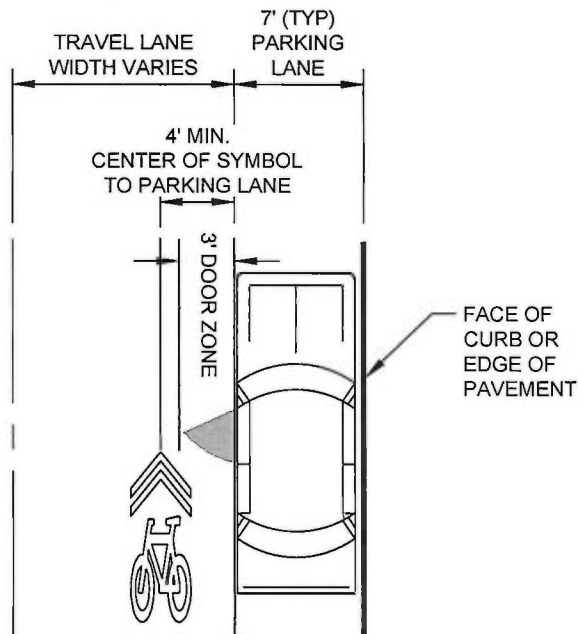
5/31/12
DATE

CITY OF TACOMA
VALVE CHAMBER
COLLAR DETAIL

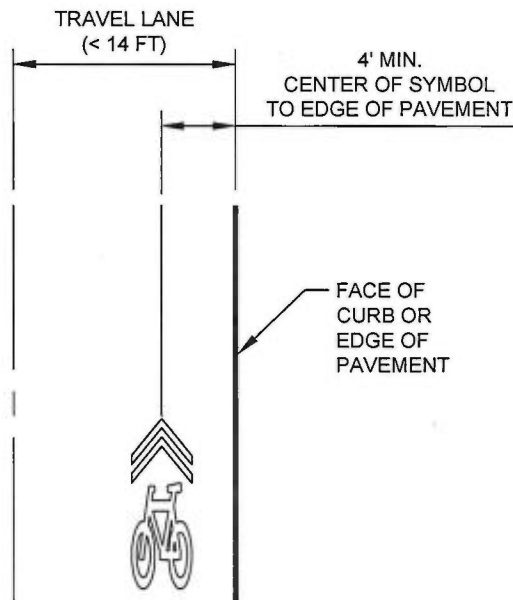
STANDARD PLAN NO. SU-37

NOTES

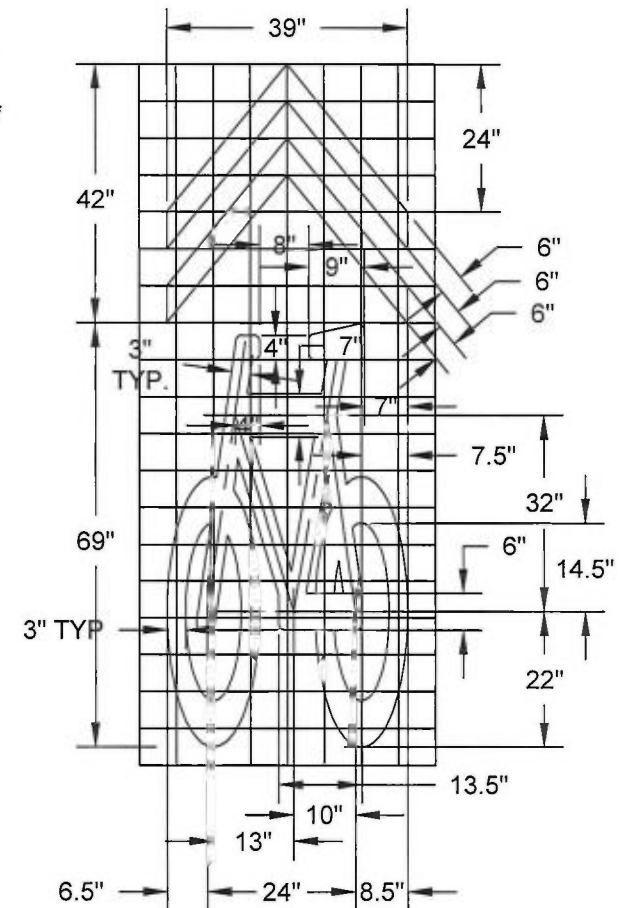
1. Contractor will provide necessary control points to assist in preliminary spotting for pavement markings and associated signs.
2. When included in contract documents, Sharrows should be placed immediately after an intersection and spaced typically at intervals not greater than 250 feet thereafter.
3. When conditions support bicyclists occupying the full travel lane, the preferred placement of the Sharrow is within the center of the travel lane to minimize wheelpath wear.



TYPICAL SHARROW
SYMBOL PLACEMENT
WITH PARKING LANE



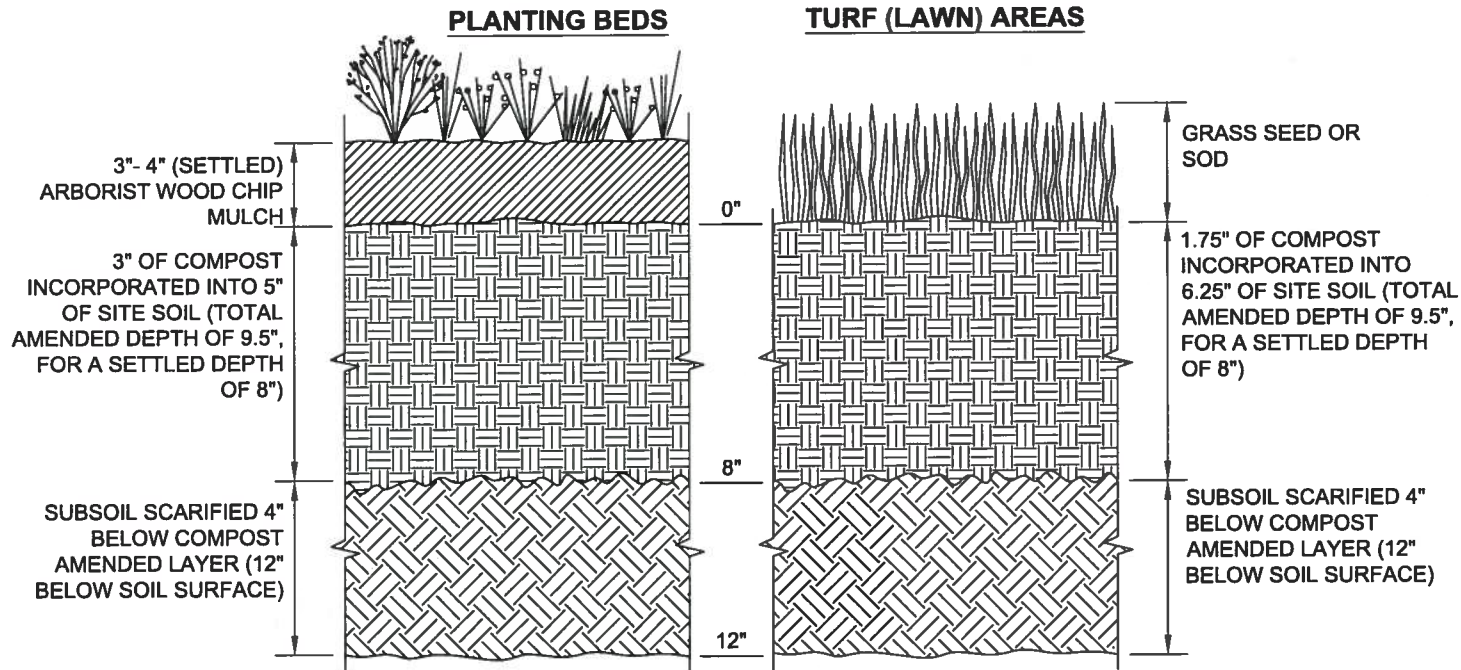
TYPICAL SHARROW
SYMBOL PLACEMENT
WITHOUT PARKING LANE



1. Grid is 6"x6" squares.
2. All rounded corners have a 1" radius.

TYPICAL SHARROW
SYMBOL DETAIL

REVIEWED BY <i>DCS</i> <i>GMS</i> PUBLIC WORKS ENVIRONMENTAL SERVICES			APPROVED FOR PUBLICATION <i>[Signature]</i> 9/8/12 CITY ENGINEER DATE		CITY OF TACOMA TYPICAL SHARROW DETAIL AND PLACEMENT GUIDELINES	
TACOMA POWER TACOMA WATER <i>N/A</i> <i>N/A</i>					STANDARD PLAN NO. CH-11	



OPTION 2: Amend existing site topsoil, or subsoil, either at preapproved rate or at calculated rate based on tests of the soil and amendments. All soil areas disturbed or compacted during construction, and not covered by buildings or pavement, shall be amended with compost as described below.

Scarification: Scarify or till subgrade to 8 inches depth (or to depth needed to achieve a total depth of 12 inches of uncompacted soil after calculated amount of amendment is added). Entire surface should be disturbed by scarification. Do not scarify within drip line of existing trees to be retained or where scarification would damage tree roots or as determined by the engineer.

A. Planting Beds

1. PREAPPROVED RATE: Place 3 inches of composted material and rototill into 5 inches of existing site soils (a total amended depth of about 9.5 inches, for a settled depth of 8 inches).

2. CALCULATED RATE: Place calculated amount of composted material or approved organic material and rototill into depth of soil needed to achieve 8 inches of settled soil at 10% organic content.

Rake beds to smooth and remove surface rocks larger than 2 inches diameter. Mulch planting beds with 3" - 4" of organic mulch or stockpiled duff.

B. Turf (Lawn) Areas

1. PREAPPROVED RATE: Place 1.75 inches of composted material and rototill into 6.25 inches of existing site soils (a total amended depth of about 9.5 inches, for a settled depth of 8 inches).

2. CALCULATED RATE: Place calculated amount of composted material or approved organic material and rototill into depth of soil needed to achieve 8 inches of settled soil at 5% organic content.

Water or roll to compact to 85% of maximum dry density. Rake to level and remove surface rocks larger than 1 inch diameter.

Setbacks: to prevent uneven settling, do not compost-amend soils within 3 feet on center of utility infrastructure (poles, vaults, meters etc.). Within one foot of pavement edge, curbs and sidewalks; soil should be compacted to approximately 90% max. modified proctor density (ASTM D1557) to ensure a firm surface. Do not compact within the tree protection zone. See Std. Plan LS-08 and LS-09.

See SWMM BMP L613 for additional information.

DCS

PUBLIC WORKS

NA

TACOMA POWER

REVIEWED BY

GY

ENVIRONMENTAL
SERVICES

NA

TACOMA WATER



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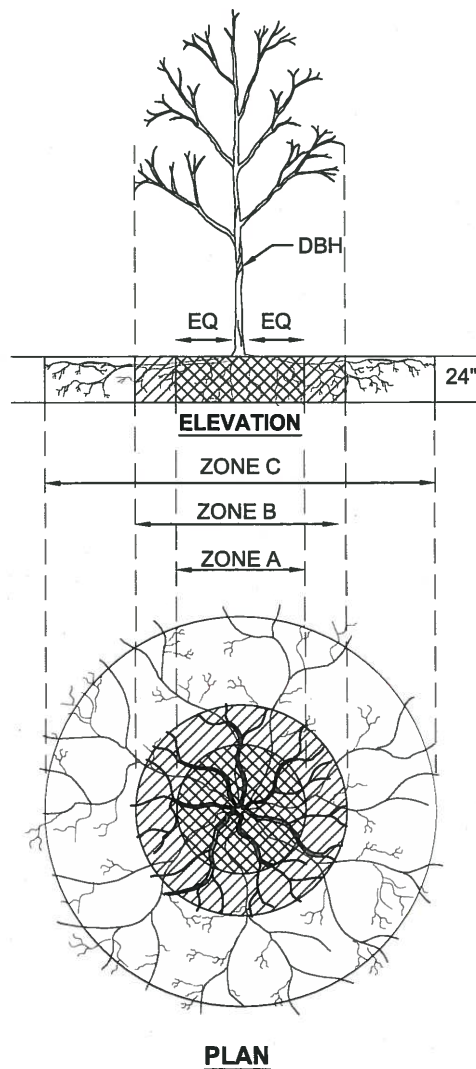
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CITY ENGINEER

4/4/10
DATE

**CITY OF TACOMA
BMP L613 POST CONSTRUCTION SOIL
QUALITY AND DEPTH
OPTION 2 - AMEND IN PLACE**

STANDARD PLAN NO. GSI-01b



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 hand-driven trencher maybe required
 - Minimize trench width to the extent possible
 - Maintain 2/3 or more of ZONE C in an undisturbed condition

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

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CITY ENGINEER

7/14/16
DATE

TREE PROTECTION
DURING CONSTRUCTION

STANDARD PLAN NO. LS-08

TREE PROTECTION ZONE (TPZ)

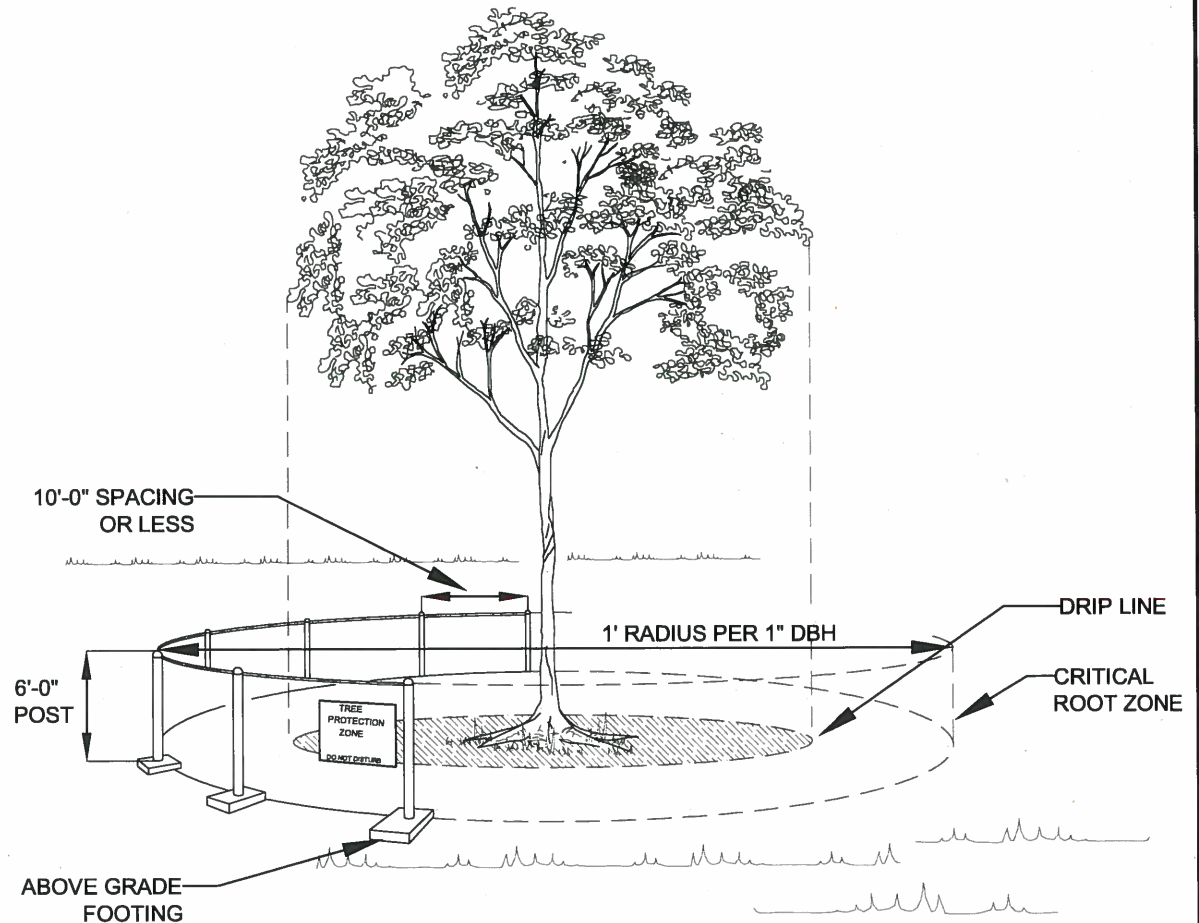
The Tree Protection Zone is an arborist defined area surrounding the trunk intended to protect the roots and soil to ensure future tree health and safety.

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 projects 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



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DEPARTMENT OF PUBLIC WORKS**

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CITY ENGINEER

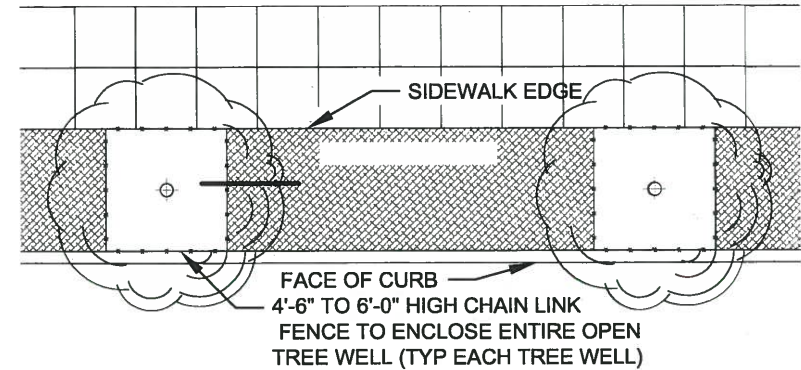
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**TREE PROTECTION
DURING CONSTRUCTION**

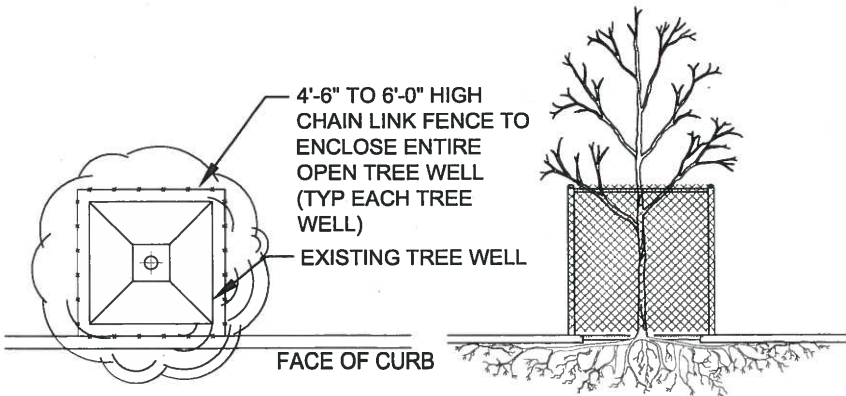
STANDARD PLAN NO. LS-09

NOTES:

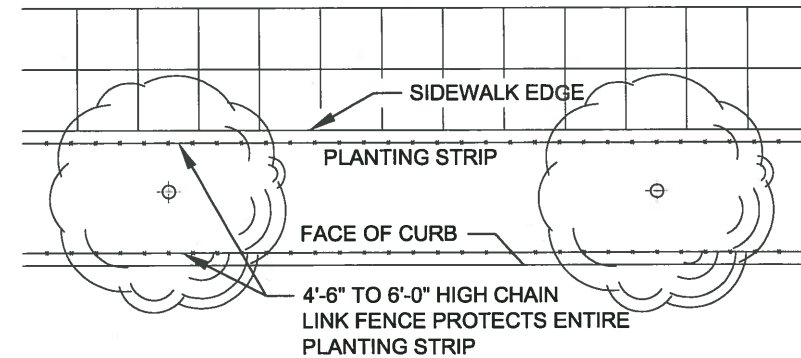
1. Tree protection requirements included in this standard detail are for trees which are directly adjacent to paved surfaces which will be retained through construction.
2. Required protection measures for trees other than those in tree wells and planting strips are contained in the TYPICAL TREE PROTECTION 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.



TREE IN PLANTING STRIP-OPTION 1



TREE IN TREE WELL



TREE IN PLANTING STRIP-OPTION 2

CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

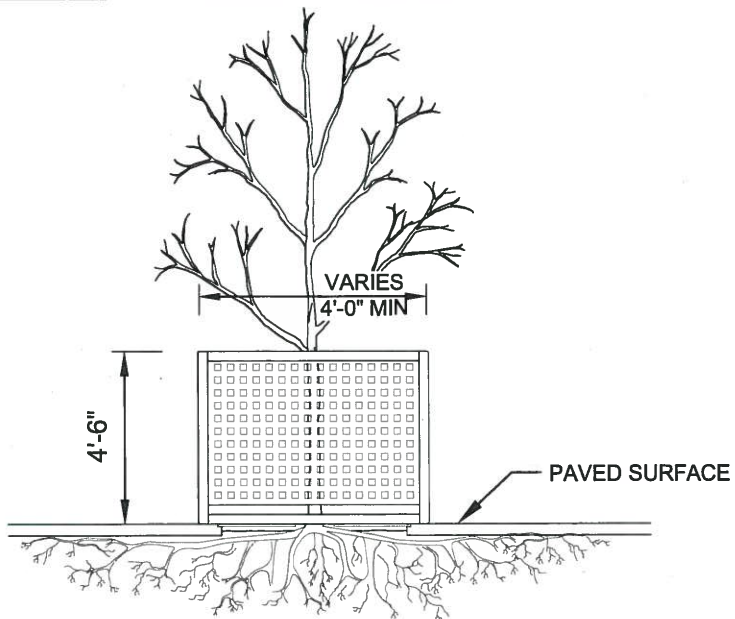
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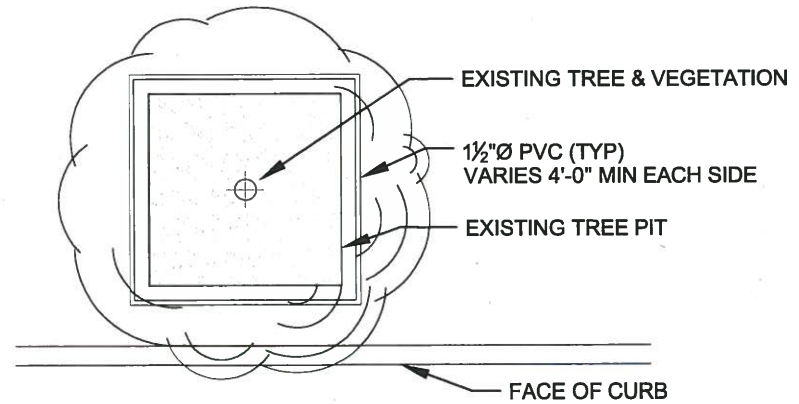
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DATE

TREE PROTECTION FENCING
FOR TREES IN PAVED AREAS

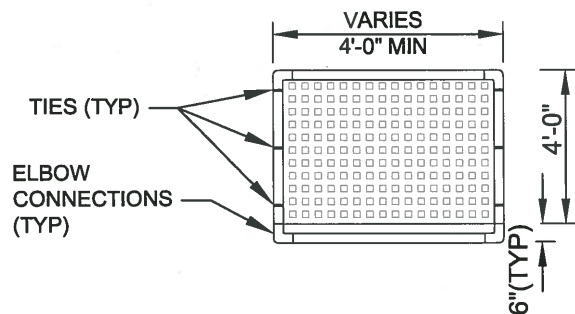
STANDARD PLAN NO. LS-10



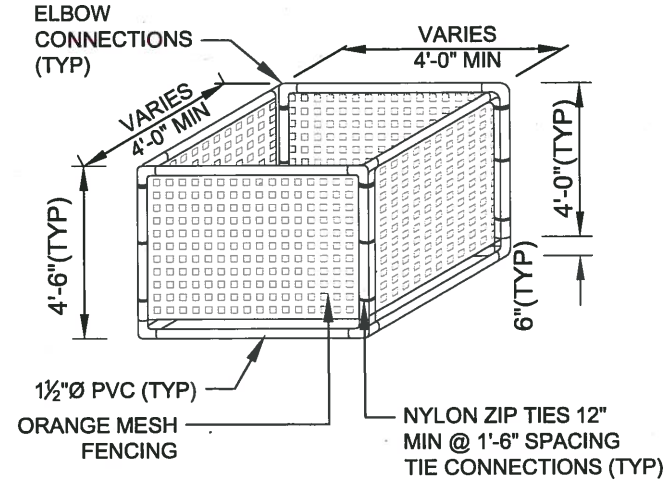
TYPICAL TREE GUARD RAIL



PLAN VIEW



TYPICAL PANEL



CITY OF TACOMA
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

CITY ENGINEER

DATE

REUSABLE TREE PROTECTION
FENCING FOR PAVED AREAS

STANDARD PLAN NO. LS-11

CONCRETE BASE

WSDOT

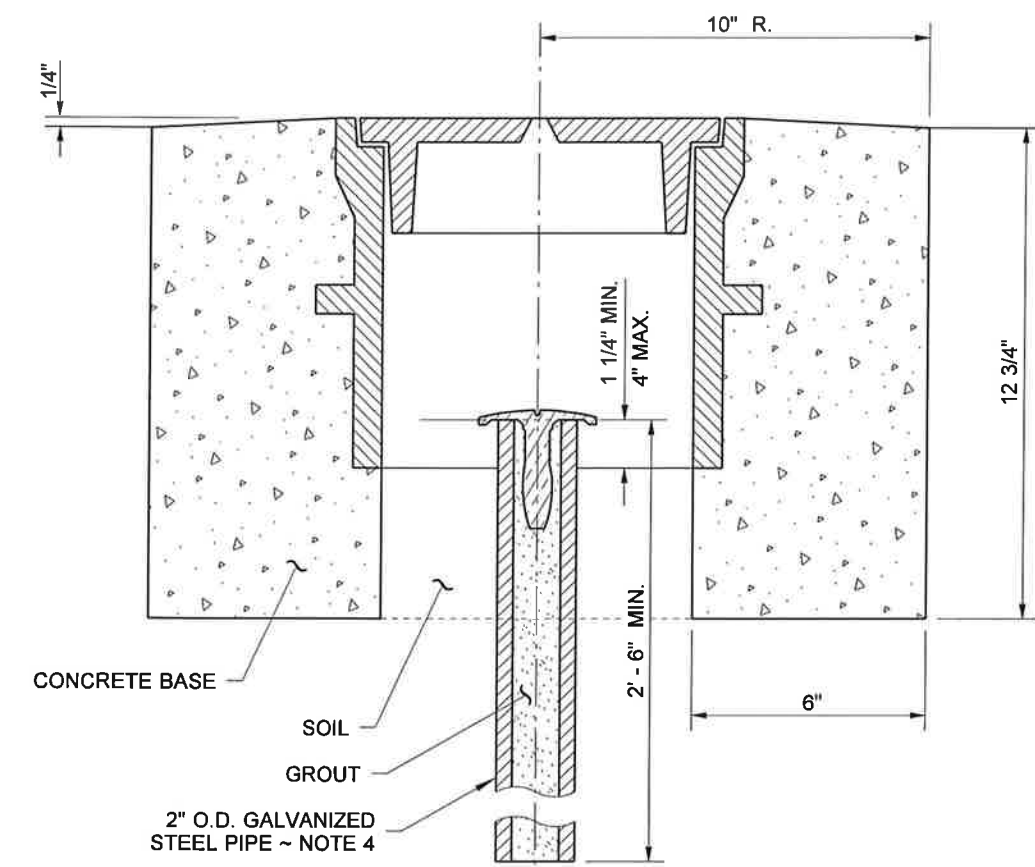
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1" GAP

1' - 8" DIAM.

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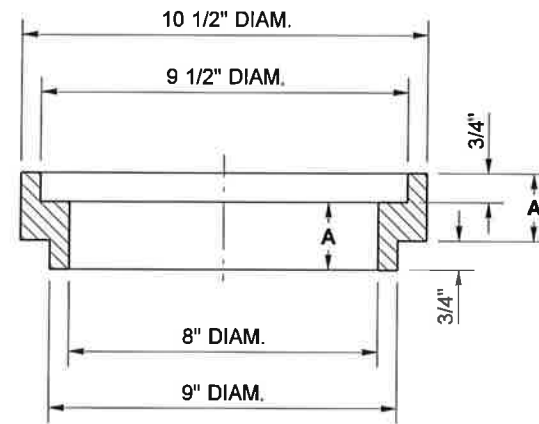
PLAN VIEW



SECTION A

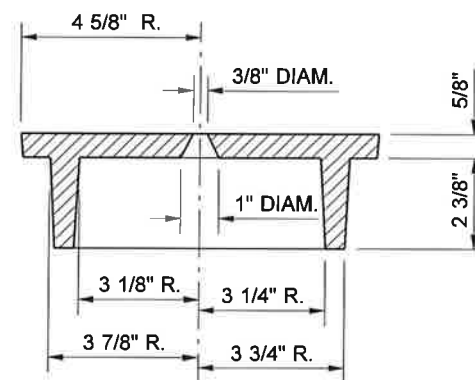
INSTALLATION

RISER RING DIMENSIONS			
A (SIZE)	1 1/2"	2"	3"

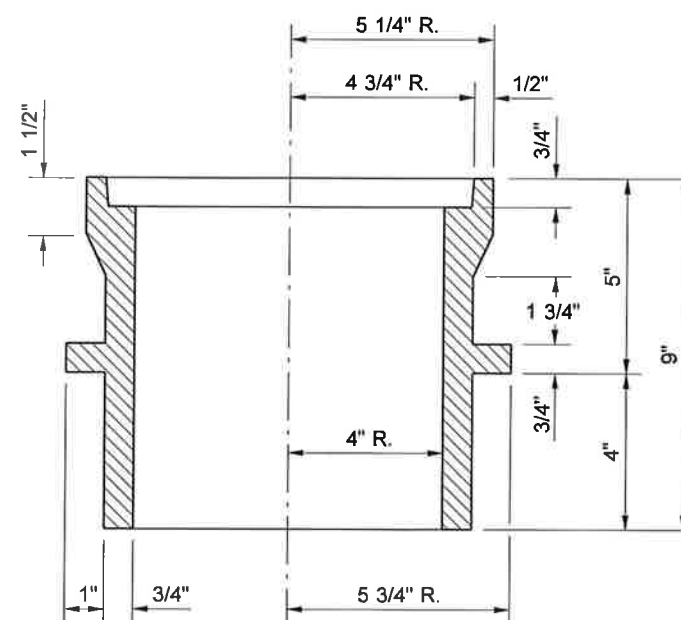


SECTION

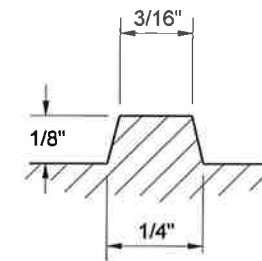
RISER RING



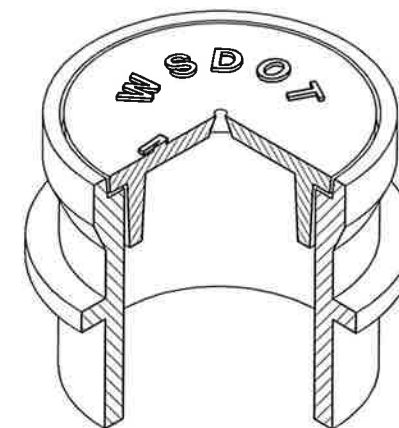
**SECTION
COVER**



SECTION CASE



SECTION OF LETTER



ISOMETRIC

NOTES

1. Dimensions may vary according to manufacturer.
2. Base to be placed on a well compacted foundation.
3. Monument case to be installed by contractor.
4. See Standard Plan A-10.20 for Monument (brass disc) type to place in 2" O.D. galvanized pipe.

APPROXIMATE WEIGHTS	
CASE	60 LBS
COVER	19 LBS
TOTAL	79 LBS



MONUMENT CASE AND COVER

STANDARD PLAN A-10.30-00

SHEET 1 OF 1 SHEET

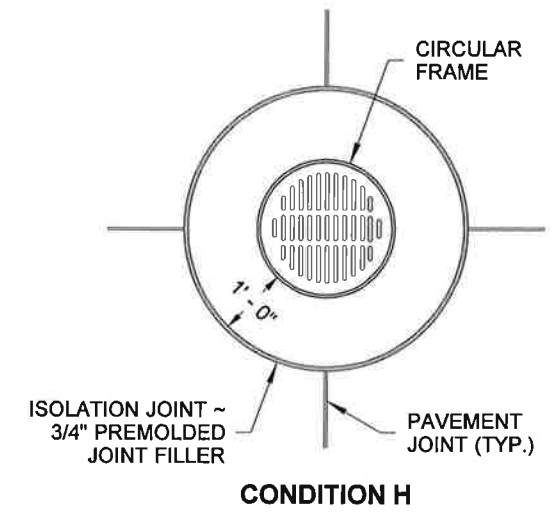
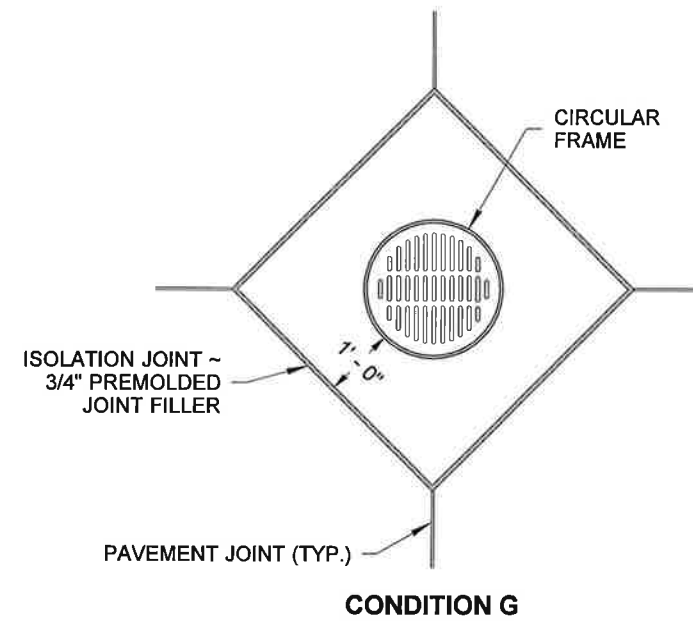
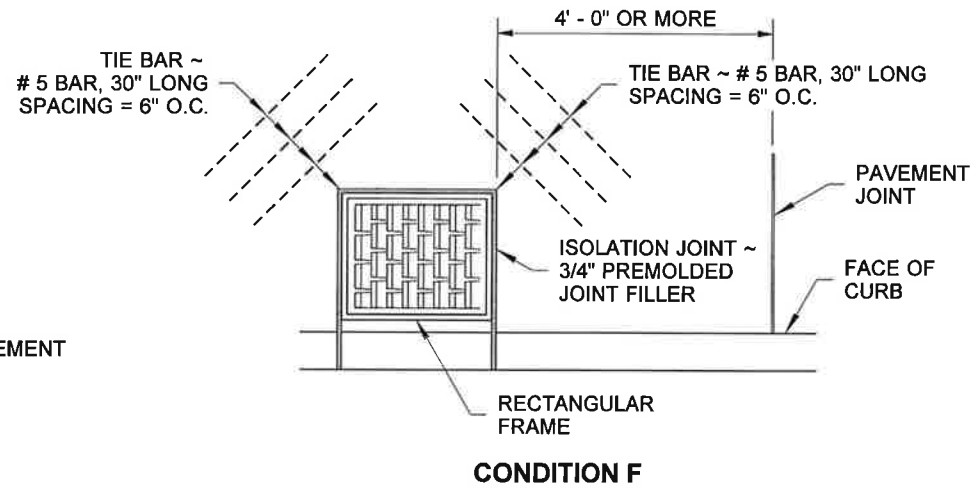
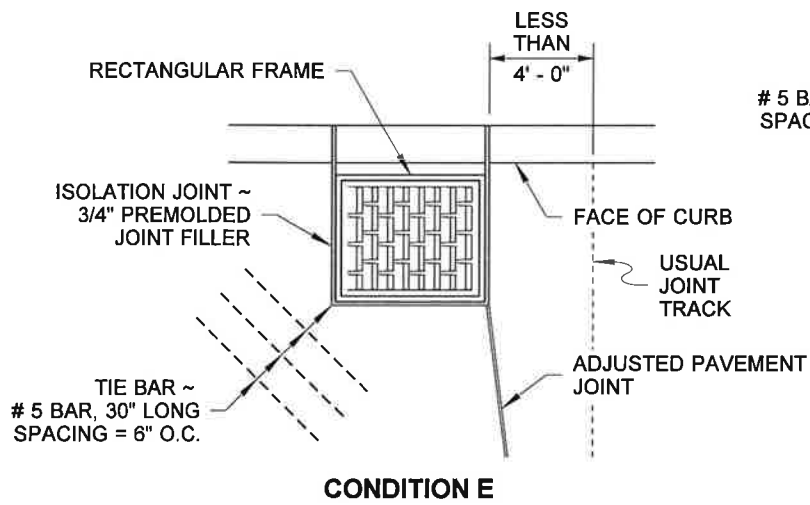
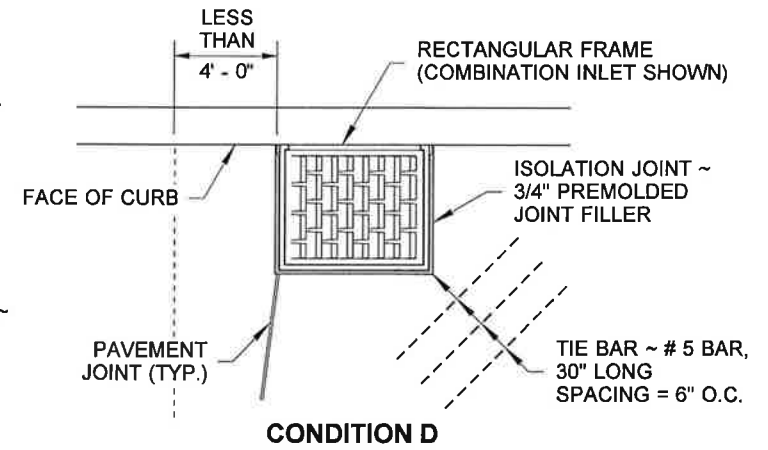
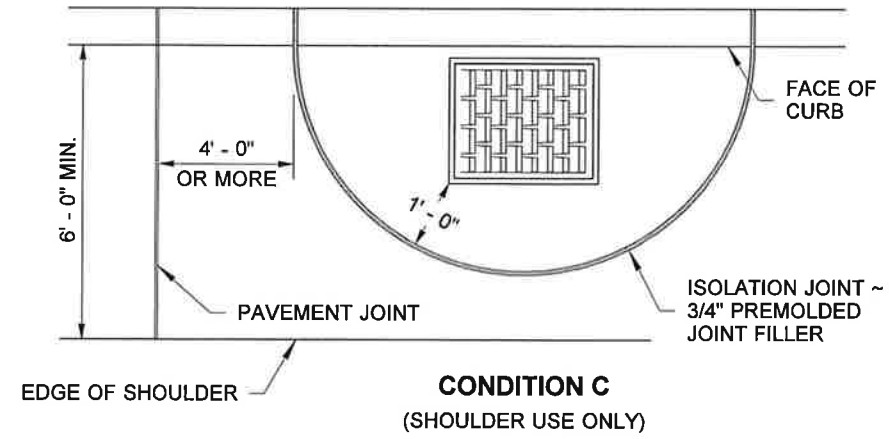
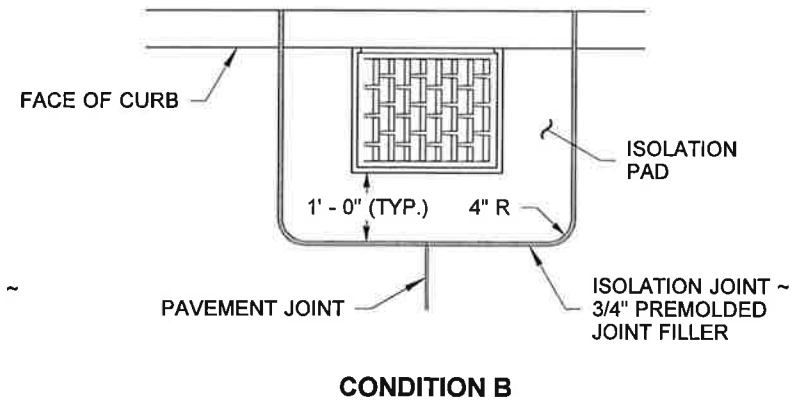
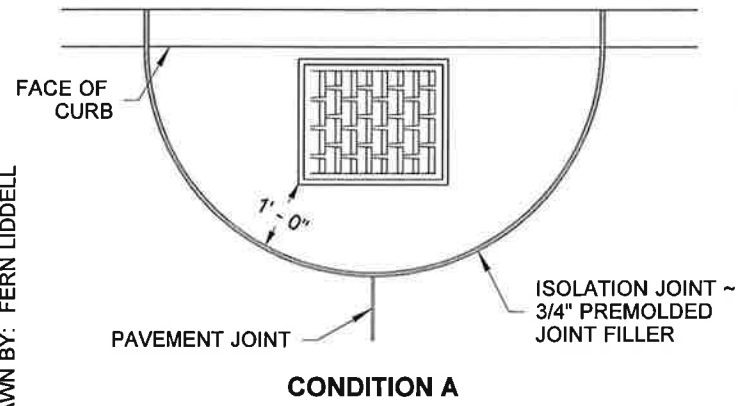
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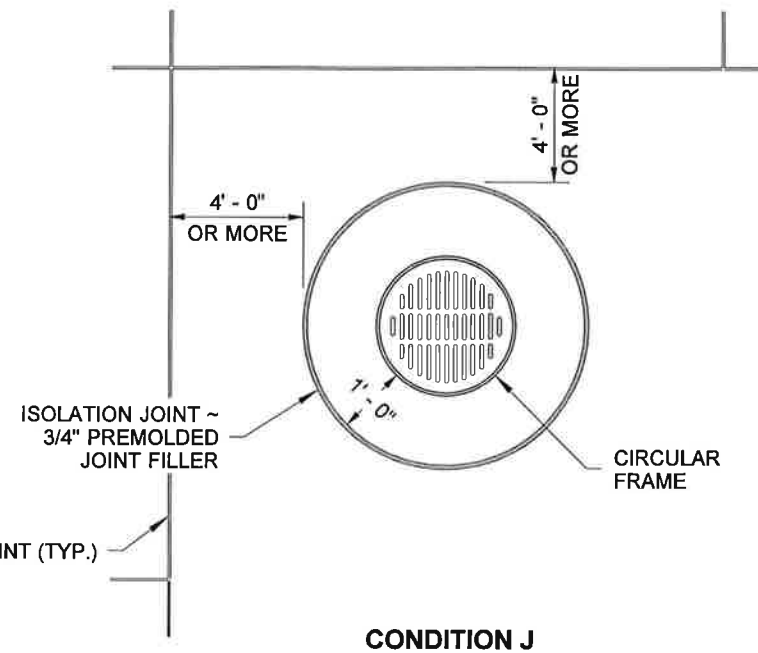
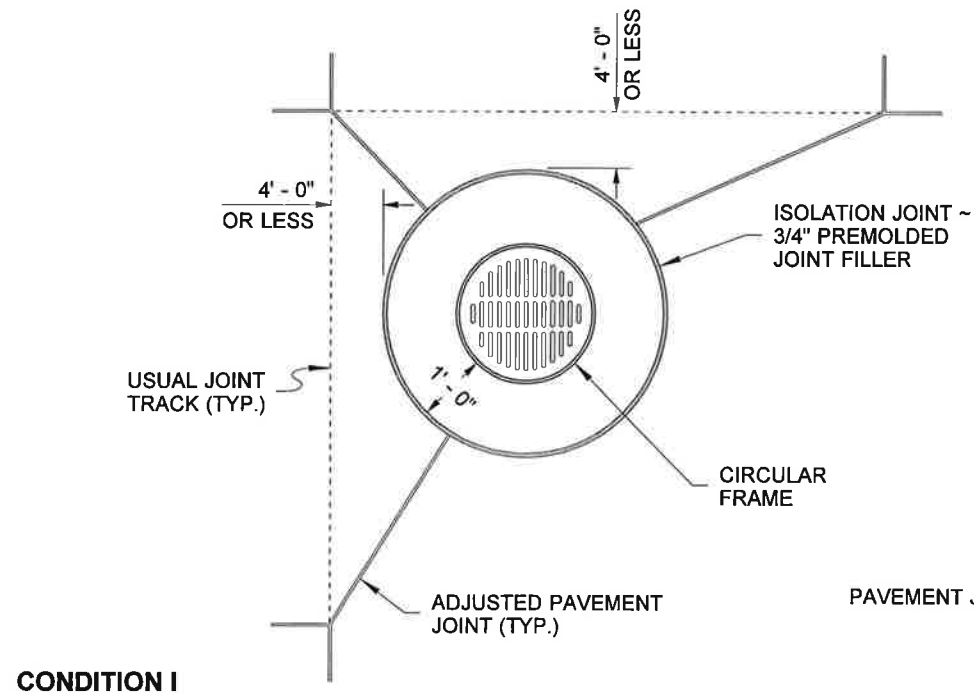
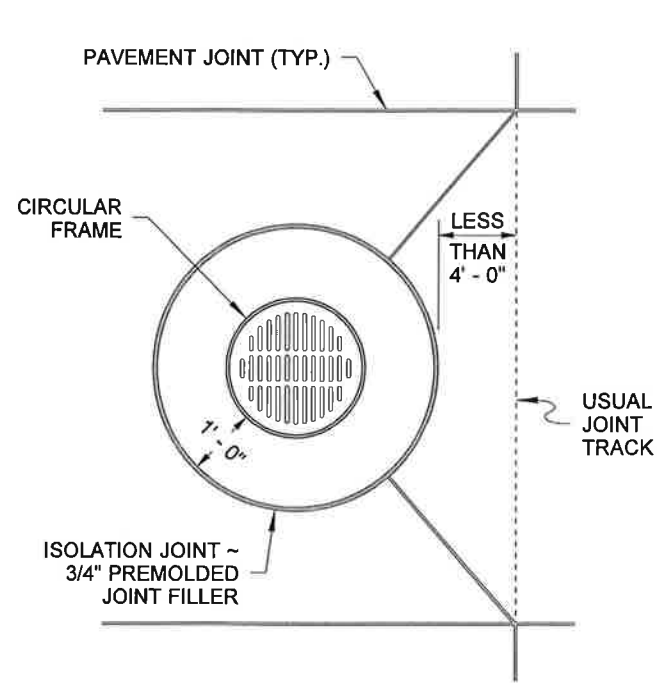
Washington State Department of Transportation

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NOTE

ALL CONDITIONS ARE SHOWN IN PLAN VIEW.



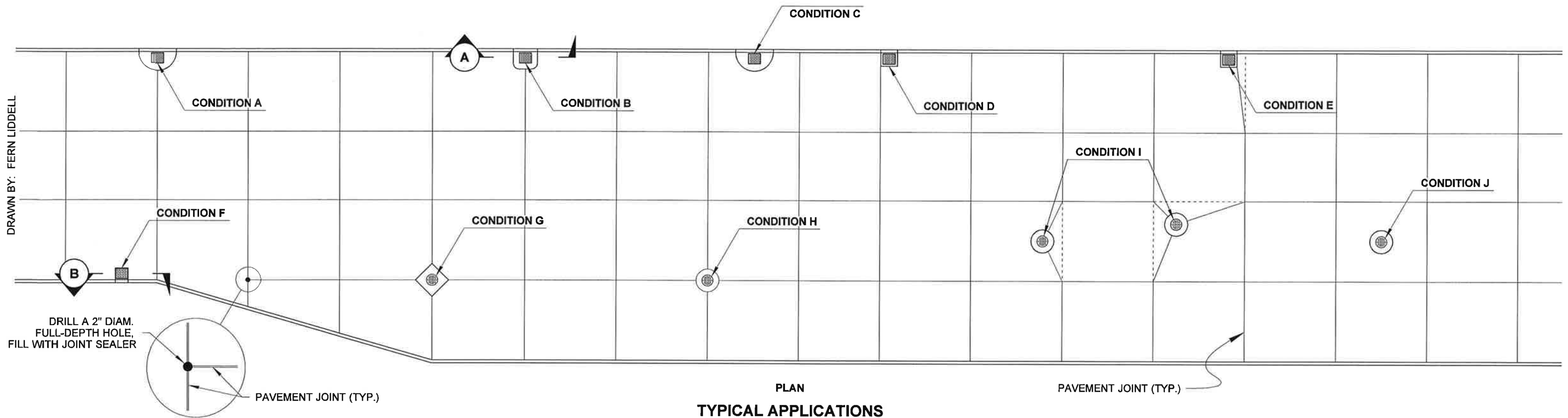
July 7 2009

**PCC PAVEMENT
ISOLATION JOINTS
STANDARD PLAN A-40.15-00**

SHEET 1 OF 2 SHEETS

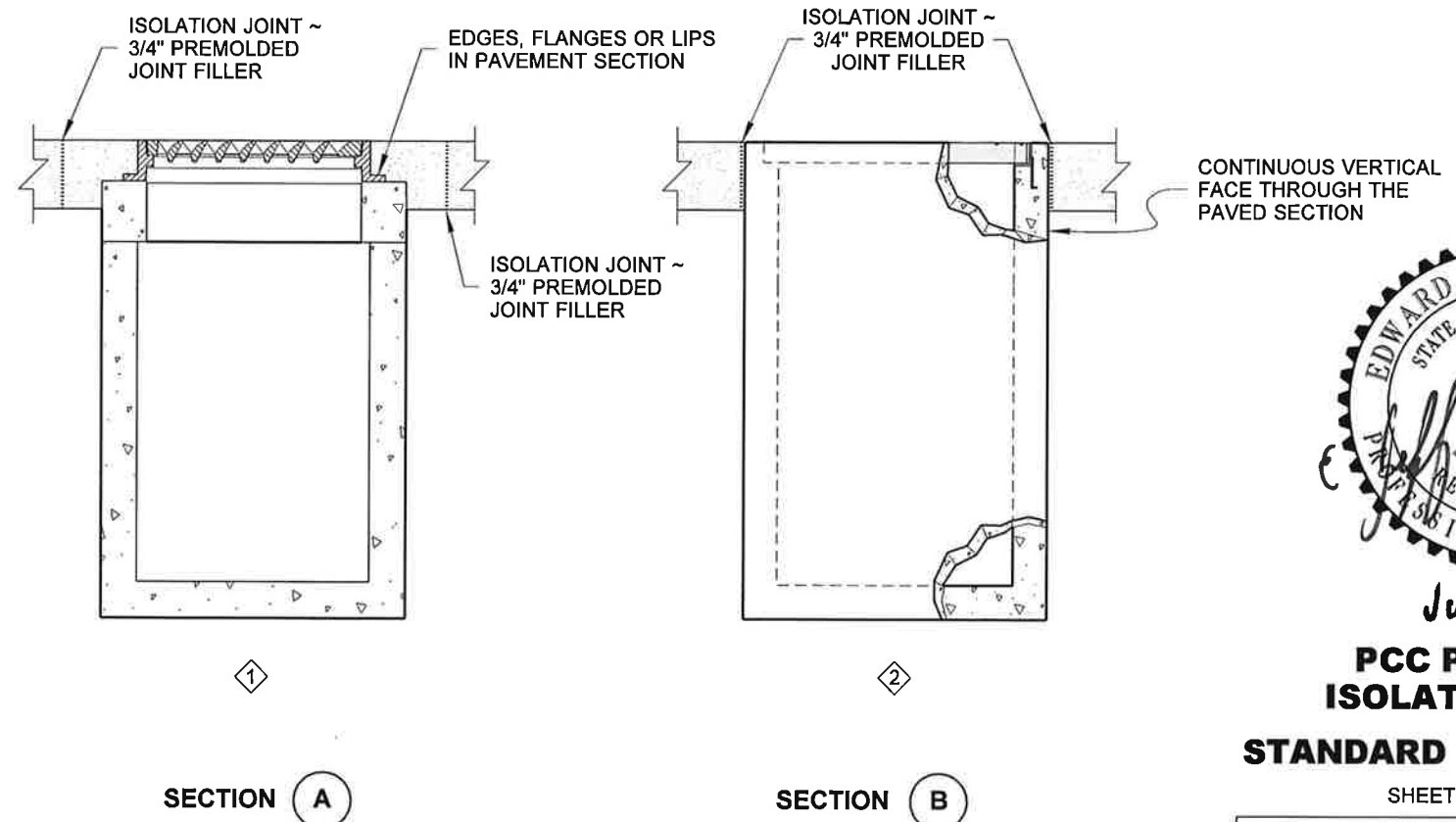
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Pamela B. B. B. 9/11/09
STATE DESIGN ENGINEER DATE
Washington State Department of Transportation

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TYPICAL ISOLATION JOINT GUIDELINES				
CONDITION	FEATURE	EDGES, FLANGES OR LIPS IN THE PAVEMENT SECTION ①	CONTINUOUS VERTICAL FACE THROUGH THE PAVEMENT SECTION ②	DISTANCE FROM NEAREST TRANSVERSE JOINT
A	CATCH BASIN OR COMBINATION GRATE	USE	---	---
B	CATCH BASIN OR COMBINATION GRATE	USE	---	---
C	CATCH BASIN OR COMBINATION GRATE	USE	---	> 4 FT FROM JOINT
D	GRATE INLET, CATCH BASIN OR CONCRETE INLET *	---	USE	< 4 FT FROM JOINT
E	GRATE INLET, CATCH BASIN OR CONCRETE INLET *	---	USE	< 4 FT FROM JOINT
F	GRATE INLET, CATCH BASIN OR CONCRETE INLET *	---	USE	> 4 FT FROM JOINT
G	MANHOLE OR CATCH BASIN TYPE 2	USE	---	---
H	MANHOLE OR CATCH BASIN TYPE 2	USE	---	---
I	MANHOLE OR CATCH BASIN TYPE 2	USE	---	< 4 FT FROM JOINT
J	MANHOLE OR CATCH BASIN TYPE 2	USE	---	> 4 FT FROM JOINT

* WITH RECTANGULAR GRATE CAST INTO ADJUSTMENT SECTION.



July 7, 2009

PCC PAVEMENT ISOLATION JOINTS

STANDARD PLAN A-40.15-00

SHEET 2 OF 2 SHEETS



APPENDIX B
Work Site Locations

Key	Work Sites	Funding	Type	longitude	latitude	Arterial	Residential	Pedestrian Ramps	Root/Tree Issues	Adjust CB	Replace CB	Connect to New CB	Adjust Manhole	Adjust Gate Valve	Adjust Junction Box	Adjust Water Meter Box	Concrete Panel SY	Concrete Sidewalk SY	Asphalt SY	Total SQ Ft	Curb LF	Striping	Cont. > than 20ppm	Cont. < than 20 ppm
Group A - ADA Pedestrian Curb Ramps																								
594	S 68th St & S Oakes St SW Corner	Group A	Ramp	-122.4724755	47.19555077	1		1										10	25	310	21			1
596	S 68th St & S Oakes St NE Corner	Group A	Ramp	-122.4722381	47.19568382			1										11	27	337	22			1
597	S 68th St & S Oakes St SE Corner	Group A	Ramp	-122.4722341	47.19553801			1										10	27	335	22			1
601	S 70th St & S Oakes St NE Corner	Group A	See Plans	-122.4723105	47.19385212	1		2	1									14	25	350	21			1
603	S 70th St & S Oakes St SE Corner	Group A	See Plans	-122.4723186	47.19371725			2					1					15	25	354	21			1
606	S 36th St & S Wilkeson St NW Corner	Group A	Ramp	-122.4592652	47.22652838		1	2										1	25	234				1
608	S 36th St & S Wilkeson St SW Corner	Group A	Ramp	-122.4592665	47.22636717			2								1		16	5	188				1
611	S 36th St & S Wilkeson St NE Corner	Group A	Ramp	-122.45906	47.22652929			2										13	5	168				1
613	S 36th St & S Wilkeson St SE Corner	Group A	Ramp	-122.4590922	47.22637173			2										11	5	147				1
616	S 54th St & Birmingham St NW Corner	Group A	Ramp	-122.4803752	47.20816297	1		1		1								21	22	386	20			1
619	S 54th St & Birmingham St SW Corner	Group A	Ramp	-122.4803685	47.20798623			1										18	16	308	17			1
622	S 54th St & Birmingham St NE Corner	Group A	Ramp	-122.4801432	47.20815933			1		1				1				17	22	352	20			1
625	S 54th St & Birmingham St SE Corner	Group A	Ramp	-122.4801419	47.20799534			2										19	6	221	14			1
630	S 17th St & S Fife St SW Corner	Group A	Ramp	-122.4704647	47.24471086		1	2										21	23	398	20			1
634	S 17th St & S Fife St SE Corner	Group A	Ramp	-122.4702689	47.24471724			2	1	1			1					21	22	391	20			1
638	S 16th & S Ridgewood Ave NW Corner	Group A	Ramp	-122.4607299	47.24612193		1	1								1		8	2	95				1
639	S 16th & S Ridgewood Ave SW Corner	Group A	Ramp	-122.4606964	47.24600175			1						1				20	50	630				1
641	S 16th & S Ridgewood Ave NE Corner	Group A	Ramp	-122.4605314	47.24614742			1										8	2	95				1
642	S 16th & S Ridgewood Ave SE Corner	Group A	Ramp	-122.4605073	47.24603362			1										16	57	657				1
645	N 11th St & Junett St NW Corner	Group A	Ramp	-122.4749033	47.2599265		1	2										18		165	12		1	
647	N 11th St & Junett St SW Corner	Group A	Ramp	-122.4749019	47.25980272			2										18		161	14		1	
649	N 11th St & Junett St NE Corner	Group A	Ramp	-122.4746981	47.25993105			2	1									22		196	14		1	
651	N 11th St & Junett St SE Corner	Group A	Ramp	-122.4747129	47.25980181			2										17		155	8		1	
715	S 45th St & S Fawcett NW Corner	Group A	Ramp	-122.4376333	47.2168543		1	2								1		15	9	211	20			1
717	S 45th St & S Fawcett SW Corner	Group A	Ramp	-122.4376226	47.21669124			2	1	1								14	63	698	32			1
723	S 45th St & S Fawcett SE Corner	Group A	Ramp	-122.4374027	47.216704			2	1	1								17	10	241	22			1
783	N 35th St & N Proctor St NW Corner	Group A	Ramp	-122.4889087	47.27963875	1		2										22	1	209	13		1	
785	N 35th St & N Proctor St SW Corner	Group A	Ramp	-122.4889221	47.27949773			2										21		190	13		1	
787	N 35th St & N Proctor St NE Corner	Group A	Ramp	-122.4886794	47.27963329			2										17		155	18		1	
789	N 35th St & N Proctor St SE Corner	Group A	Ramp	-122.4886807	47.27949955			2										23		205	13		1	
Group C - Go Philly Offsite Improvements																								
819	S 16th & Tacoma Ave NW Corner (Go Philly)	Group C	See Plans	-122.4434581	47.24769349	1									1			280	38		90			1
Group E - Public Works Engineering Street Panels																								
224	833 S Trafton St	Group E	Panel	-122.4670079	47.25241753		1										25			227	15	1		1
812	N 14th & N Fife	Group E	Panel	-122.4705963	47.26240677		1										16			144	9		1	
813	N 14th & N Fife	Group E	Panel	-122.4705963	47.26238812												16			144	9		1	
814	N 14th & N Fife	Group E	Panel	-122.4706157	47.26240859												18			160	10		1	
815	N 14th & N Fife	Group E	Panel	-122.470617	47.26238948												18			160	10		1	
816	N 14th & N Fife	Group E	Panel	-122.4706331	47.26238994												27			240	15		1	
Group O - Public Works Street Operations Pedestrian Curb Ramps																								
267	S 60th St & S Lawrence St NW Corner	Group O	Ramp	-122.479861	47.20293753		1	1		1								17	11	246	24			1
270	S 60th St & S Lawrence St SW Corner	Group O	Ramp	-122.4798489	47.20280997			1		1				2		2		17	11	251				1

Key	Work Sites	Funding	Type	longitude	latitude	Arterial	Residential	Pedestrian Ramps	Root/Tree Issues	Adjust CB	Replace CB	Connect to New CB	Adjust Manhole	Adjust Gate Valve	Adjust Junction Box	Adjust Water Meter Box	Concrete Panel SY	Concrete Sidewalk SY	Asphalt SY	Total SQ Ft	Curb LF	Striping	Cont. > than 20ppm	Cont. < than 20 ppm
274	S 60th St & S Lawrence St SE Corner	Group O	Ramp	-122.4796156	47.20280633			1			1	1				1		17	10	244	23			1
279	S 62nd St & S Warner St NW Corner	Group O	Ramp	-122.4812481	47.20113204		1	1										10	34	390				1
281	S 62nd St & S Warner St SW Corner	Group O	Ramp	-122.4812562	47.20100903			1										13	28	362	23			1
284	S 62nd St & S Warner St NE Corner	Group O	Ramp	-122.4809866	47.20113204			1								1		6	31	325				1
286	S 62nd St & S Warner St SE Corner	Group O	Ramp	-122.4809947	47.20100903			1										17	29	421	23			1
291	S 60th St & S Montgomery St NW Corner	Group O	Ramp	-122.4785109	47.20293251		1	1							1			9	10	164	22			1
294	S 60th St & S Montgomery St SW Corner	Group O	Ramp	-122.4785083	47.20280312			1							1			14		127	17			1
309	N 45th St & N Frace St SW Corner	Group O	Ramp	-122.5237213	47.28990002		1	1			1	1							50	450			1	
312	N 45th St & N Frace St SE Corner	Group O	Ramp	-122.5235296	47.28990184			1										14	23	329			1	
317	N 45th St & N Whitman St SW Corner	Group O	Ramp	-122.5224996	47.28989183		1	1						1				16	53	621	31		1	
319	N 45th St & N Whitman St NE Corner	Group O	Ramp	-122.5223092	47.29001282			1		1						1		8	4	115	10		1	
320	N 45th St & N Whitman St SE Corner	Group O	Ramp	-122.5223038	47.28989456			1			1	1							68	613	35		1	
322	N 49th St & Five Views Dr NW Corner	Group O	Ramp	-122.5233328	47.29457916		1	1											2	20			1	
323	N 49th St & Five Views Dr SW Corner	Group O	Ramp	-122.523369	47.2944782			1		1								8	50	525			1	
324	N 49th St & Five Views Dr NE Corner	Group O	Ramp	-122.522748	47.2945446			1											2	20			1	
325	N 49th St & Five Views Dr SE Corner	Group O	Ramp	-122.5227816	47.29444909			1											2	20			1	
327	N Hale St & Five Views Dr NW Corner	Group O	Ramp	-122.5229465	47.29412983		1	1										8	3	103				1
329	N Hale St & Five Views Dr NE Corner	Group O	Ramp	-122.5227775	47.29412164			1										20	25	401	21			1
330	N Hale St & Five Views Dr SE Corner	Group O	Ramp	-122.5227749	47.29400249			1								4		7	4	100	10			1
332	S 15th St & S G St NW Corner	Group O	Ramp	-122.4451482	47.2485856	1		1										15		135	30			1
334	S 15th St & S G St SW Corner	Group O	Ramp	-122.4451039	47.24839625			1								1		16		141	30			1
336	S 15th St & S G St SE Corner	Group O	Ramp	-122.4448773	47.24861201			1										22		199	32			1
339	S 15th St & S G St SE Corner	Group O	Ramp	-122.4448384	47.24842356			1			1	2						16		147	31			1
366	N 25th St & N Ferdinand St NW Corner	Group O	Ramp	-122.5024185	47.27021197		1	2										20	50	630	30		1	
369	N 25th St & N Ferdinand St SW Corner	Group O	Ramp	-122.5024185	47.27004726			2			1	1						12	32	392	24		1	
371	N 25th St & N Ferdinand St NE Corner	Group O	Ramp	-122.5022267	47.27019195			2										12	41	469	27		1	
372	N 25th St & N Ferdinand St SE Corner	Group O	Ramp	-122.5022354	47.27005287			2										11	25	320	21		1	
376	N 15th St & N Oakes St NW Corner	Group O	Ramp	-122.4717082	47.26371465	1		2							1			17	6	212	14		1	
378	N 15th St & N Oakes St SW Corner	Group O	Ramp	-122.4717109	47.26361272			2										20	9	256	10		1	
380	N 15th St & N Oakes St NE Corner	Group O	Ramp	-122.4715245	47.26371101			2										18	11	261	25		1	
382	N 15th St & N Oakes St SE Corner	Group O	Ramp	-122.4715218	47.26361272			2			1	1						18	93	1006	41		1	
386	N 19th St & N Fife St SW Corner	Group O	Ramp	-122.4705455	47.26616179		1	1			1	1		2				16	48	580	30		1	
388	N 19th St & N Fife St NE Corner	Group O	Ramp	-122.470347	47.26626736			1			1	1			1			18	22	366	20		1	
390	N 19th St & N Fife St SE Corner	Group O	Ramp	-122.4703698	47.2661627			1			1	2			1			30	64	845	34		1	
396	N 15th St & N Fife St NE Corner	Group O	Ramp	-122.4703791	47.26370827	1		2										19	6	223	25		1	
822	S 58th & Lawrence SW Corner	Group O	Ramp	-122.4798626	47.20425451		1	1										4	4	65				1
823	S 58th & Lawrence SE Corner	Group O	Ramp	-122.479599	47.20425451			1										4		32				1
Group P - Pierce Transit Bud Pads																								
817	74th & Madison NW Corner	Group P	See Appendixt F	-122.4907376	47.19058067	1												19		171				1
818	74th & Madison SE Corner	Group P	See Appendixt F	-122.4899477	47.19041207													19		171				1
Group S - Public Works Streelight Conduit Panels																								
801	608 S Monroe St	Group S	Panel-Conduit	-122.4917777	47.25533105	1											44			396	52	48	1	
802	4002 6th Ave	Group S	Panel-Conduit	-122.4907021	47.25532194	1											62			555	50	60	1	
804	4515 6th Ave	Group S	Panel-Conduit	-122.4987206	47.25536962	1											45			406	50	30	1	
805	4818 S Yakima Ave	Group S	Panel-Conduit	-122.4431914	47.21293812												67			600	45	30		1

Key	Work Sites	Funding	Type	longitude	latitude	Arterial	Residential	Pedestrian Ramps	Root/Tree Issues	Adjust CB	Replace CB	Connect to New CB	Adjust Manhole	Adjust Gate Valve	Adjust Junction Box	Adjust Water Meter Box	Concrete Panel SY	Concrete Sidewalk SY	Asphalt SY	Total SQ Ft	Curb LF	Striping	Cont. > than 20ppm	Cont. < than 20 ppm
806	4840 S Yakima Ave	Group S	Panel-Conduit	-122.4432084	47.21225548												32			285	45	30		1
807	5023 S Yakima Ave	Group S	Panel-Conduit	-122.4431824	47.21092846												51			460	45	30		1
808	5031 S Yakima Ave	Group S	Panel-Conduit	-122.4431771	47.21063147												35			315	45	30		1
Group W - Tacoma Water Street Panels																								
1	3409 S D St	Group W	Panel	-122.4363713	47.22990735	1											21			190				1
2	3716 S D St	Group W	Panel	-122.4360595	47.22409353		1										34			302				1
3	3419 Tacoma Ave S	Group W	Panel	-122.4389254	47.2286403		1										30			270				1
4	4015 Tacoma Ave S	Group W	Panel	-122.4391327	47.22021014		1										31			277				1
5	4041 Tacoma Ave S	Group W	Panel	-122.4391206	47.21926876												62			560				1
6	4056 Tacoma Ave S	Group W	Panel	-122.4391189	47.21888027		1										31			280				1
7	4308 Tacoma Ave S	Group W	Panel	-122.4391151	47.21801559		1										31			277				1
8	4326 Tacoma Ave S	Group W	Panel	-122.4391098	47.21745357												31			277				1
9	4329 Tacoma Ave S	Group W	Panel	-122.4391091	47.21726228		1										31			280				1
10	4338 Tacoma Ave S	Group W	Panel	-122.4391064	47.21701132												31			280				1
11	4338 Tacoma Ave S	Group W	Panel	-122.4391057	47.2170341												31			280				1
12	4339 Tacoma Ave S	Group W	Panel	-122.4391071	47.21702863		1										31			280				1
16	4625 Tacoma Ave S	Group W	Panel	-122.4390913	47.21427329		1										15			131	9			1
17	4630 Tacoma Ave S	Group W	Panel	-122.4390927	47.21426919		1										34			310				1
18	3701 S Fawcett Ave	Group W	Panel	-122.4376006	47.22447544		1										23			203				1
19	3410 S Fawcett Ave	Group W	Panel	-122.4380439	47.2297319												75			678				1
20	3710 S Fawcett Ave	Group W	Panel	-122.4376014	47.22420099												26			231				1
21	4818 S Yakima Ave	Group W	Panel	-122.4433003	47.21293433	1											18			160				1
22	4830 S Yakima Ave	Group W	Panel	-122.4432824	47.21247357												27			240				1
23	4833 S Yakima Ave	Group W	Panel	-122.4432771	47.21239933												27			242				1
24	4837 S Yakima Ave	Group W	Panel	-122.4432717	47.21227566												27			240				1
25	4840 S Yakima Ave	Group W	Panel	-122.4432717	47.21224788												27			240				1
26	4846 S Yakima Ave	Group W	Panel	-122.4432747	47.21211726	1											28			248				1
27	4849 S Yakima Ave	Group W	Panel	-122.4432533	47.21195568												16			140				1
28	5023 S Yakima Ave	Group W	Panel	-122.44325	47.21092715	1											16			140				1
29	5031 S Yakima Ave	Group W	Panel	-122.4432473	47.21063335	1											15			132				1
30	4303 S G St	Group W	Panel	-122.4405672	47.21828553	1											45			403				1
31	4625 S G St	Group W	Panel	-122.4405478	47.21428686	1											45			406				1
32	4626 S G St	Group W	Panel	-122.4405445	47.21421125												48			430				1
33	4630 S G St	Group W	Panel	-122.4405445	47.21407506												30			271				1
34	4634 S G St	Group W	Panel	-122.4405425	47.21393022												49			443				1
35	3580 Pacific Ave	Group W	Panel	-122.4341558	47.2267003	1												19		171				1
36	702 S 49th St	Group W	Panel	-122.4402394	47.21274929		1										34			307				1
37	714 S 27th St	Group W	Panel	-122.4412163	47.23621951	1											33			301	15			1
38	211 S 34th St	Group W	Panel	-122.4346827	47.23008667	1											48			436				1
39	308 S 34th St	Group W	Panel	-122.4354163	47.23001018												48			436				1
40	407 S 34th St	Group W	Panel	-122.4369961	47.22984285	1											48			436				1
41	501 S 34th St	Group W	Panel	-122.4381921	47.22971597	1											48			436				1
42	505 S 34th St	Group W	Panel	-122.4382705	47.22970823												48			436				1
43	509 S 34th St	Group W	Panel	-122.4384455	47.22969149												48			436				1
44	511 S 34th St	Group W	Panel	-122.4387111	47.22966098												49			440				1

Key	Work Sites	Funding	Type	longitude	latitude	Arterial	Residential	Pedestrian Ramps	Root/Tree Issues	Adjust CB	Replace CB	Connect to New CB	Adjust Manhole	Adjust Gate Valve	Adjust Junction Box	Adjust Water Meter Box	Concrete Panel SY	Concrete Sidewalk SY	Asphalt SY	Total SQ Ft	Curb LF	Striping	Cont. > than 20ppm	Cont. < than 20 ppm
45	515 S 34th St	Group W	Panel	-122.4389095	47.22964095												13			121				1
46	302 S 35th St	Group W	Panel	-122.43501	47.22904651		1										31			281				1
47	306 S 35th St	Group W	Panel	-122.4352206	47.22902284												30			267				1
48	316 S 35th St	Group W	Panel	-122.435527	47.22899779												29			259	19			1
49	318 S 35th St	Group W	Panel	-122.4356953	47.22897821												28			250	19			1
50	321 S 35th St	Group W	Panel	-122.4358697	47.22895772												28			254	20			1
51	324 S 35th St	Group W	Panel	-122.4360085	47.22894497												30			271	20			1
52	401 S 35th St	Group W	Panel	-122.4365349	47.22889169		1										28			254	20			1
53	402 S 35th St	Group W	Panel	-122.4364571	47.22889807												30			269	20			1
54	406 S 35th St	Group W	Panel	-122.436621	47.22888031												30			267	20			1
55	406 S 35th St	Group W	Panel	-122.4365848	47.22888464												30			267				1
56	408 S 35th St	Group W	Panel	-122.4367773	47.22886483												30			269	20			1
57	411 S 35th St	Group W	Panel	-122.436903	47.22885208												29			265	20			1
58	412 S 35th St	Group W	Panel	-122.43701	47.22884129												30			267	20			1
59	420 S 35th St	Group W	Panel	-122.4374076	47.22879667												30			267	20			1
60	424 S 35th St	Group W	Panel	-122.4375672	47.22878164												22			196	5			1
61	504 S 35th St	Group W	Panel	-122.437995	47.22873611												28			256	20			1
62	509 S 35th St	Group W	Panel	-122.4383192	47.22870104												31			278	20			1
63	509 S 35th St	Group W	Panel	-122.4382944	47.22870468												31			275	20			1
64	510 S 35th St	Group W	Panel	-122.4382467	47.22870844												58			520				1
66	524 S 35th St	Group W	Panel	-122.4390058	47.22862556												30			273	20			1
67	524 S 35th St	Group W	Panel	-122.4390568	47.22862056												31			276	20			1
68	613 S 35th St	Group W	Panel	-122.4401752	47.22850672		1										23			208				1
69	616 S 35th St	Group W	Panel	-122.4402503	47.22849943												30			273	20			1
70	2308 MLK JR Way	Group W	Panel	-122.4488607	47.23923264	1											31			280				1
71	2308 MLK JR Way	Group W	Panel	-122.448858	47.23920714												19			168	12			1
72	2309 MLK JR Way	Group W	Panel	-122.4488728	47.23926633												19			168	12			1
73	2312 MLK JR Way	Group W	Panel	-122.4488299	47.23909424												31			280				1
74	2328 MLK JR Way	Group W	Panel	-122.4487145	47.23859162					1				2			31			283				1
75	2335 MLK JR Way	Group W	Panel	-122.4486502	47.23831027												31			283				1
76	2336 MLK JR Way	Group W	Panel	-122.4486421	47.23826929												31			280				1
77	2340 MLK JR Way	Group W	Panel	-122.4486126	47.23814455												31			282				1
78	2346 MLK JR Way	Group W	Panel	-122.4485831	47.23800979												31			276				1
79	2352 MLK JR Way	Group W	Panel	-122.4485295	47.23778397	1											31			280				1
80	612 S Prospect St	Group W	Panel	-122.4691342	47.2550079		1										31			275				1
81	622 S Prospect St	Group W	Panel	-122.4691315	47.25462286				1								31			279				1
82	608 S Monroe St	Group W	Panel	-122.4917751	47.25526569												12			108			1	
90	4002 6th Ave	Group W	Panel	-122.4907034	47.25526475												21			187	16			1
91	4515 6th Ave	Group W	Panel	-122.4987191	47.25530845									1			40			360	15	15	1	
92	3826 N 8th St	Group W	Panel	-122.4879874	47.25704304		1										28			249	15		1	
93	N Stevens & N 19th St	Group W	Panel	-122.496151	47.26629629	1								1			24			219	17	35	1	
94	3809 N 35th St	Group W	Panel	-122.4879201	47.27958943		1										34			310	20		1	
95	3813 N 35th St	Group W	Panel	-122.4881092	47.27959125												34			307	20		1	
96	3818 N 35th St	Group W	Panel	-122.4883144	47.27959216												34			308	20		1	
97	3818 N 35th St	Group W	Panel	-122.4883157	47.27954576												4			37	2		1	
101	3711 N 36th St	Group W	Panel	-122.4862569	47.28050611	1											36			324	21	21	1	

Key	Work Sites	Funding	Type	longitude	latitude	Arterial	Residential	Pedestrian Ramps	Root/Tree Issues	Adjust CB	Replace CB	Connect to New CB	Adjust Manhole	Adjust Gate Valve	Adjust Junction Box	Adjust Water Meter Box	Concrete Panel SY	Concrete Sidewalk SY	Asphalt SY	Total SQ Ft	Curb LF	Striping	Cont. > than 20ppm	Cont. < than 20 ppm
102	3718 N 36th St	Group W	Panel	-122.4867557	47.28050853												32			284	18	18	1	
103	3724 N 37th St	Group W	Panel	-122.4872029	47.28122501		1										36			324			1	
104	3724 N 37th St	Group W	Panel	-122.4872043	47.28126641												5			45			1	
106	3212 N Stevens St	Group W	Panel	-122.4961769	47.27727605	1							1				17			153		30	1	
107	N 33rd and Stevens-NW Corner	Group W	Panel	-122.4962595	47.27777573					1							22			200			1	
108	3602 N Stevens St	Group W	Panel	-122.4961504	47.28073549	1											32			292		29	1	
109	3602 N Stevens St	Group W	Panel	-122.4961491	47.28070729												30			270		40	1	
110	3602 N Stevens St	Group W	Panel	-122.4961491	47.28078326												32			292		33	1	
111	3309 N Adams St	Group W	Panel	-122.4872443	47.27808435		1										36			326	21		1	
112	3310 N Adams St	Group W	Panel	-122.4872524	47.27802521												34			302	20		1	
113	3315 N Adams St	Group W	Panel	-122.487243	47.27825267												34			310	20		1	
114	3419 N Adams St	Group W	Panel	-122.4872307	47.27938035		1										33			297	19		1	
115	3504 N Adams St	Group W	Panel	-122.487221	47.27973117		1										36			326	21		1	
116	3519 N Adams St	Group W	Panel	-122.4868643	47.28050497												31			279	18	18	1	
117	3705 N Adams St	Group W	Panel	-122.4871992	47.28179781		1										35			314	20			1
118	3502 N 35th St	Group W	Panel	-122.4843889	47.27956232		1										35			315				1
119	4652 N Pearl St	Group W	Panel	-122.5157925	47.29268018	1											24			213	15		1	
120	4652 N Pearl St	Group W	Panel	-122.5157522	47.29267654												35			315	15	30	1	
820	3011 S 56th St	Group W	Panel	-122.4757035	47.20655657	1											21			192				1
821	3011 S 56th St	Group W	Panel	-122.4757008	47.20652423												23			208				1
824	3602 S Thompson Ave	Group W	Panel	-122.4447763	47.22621872	1								1			44			400	20	20		1
825	3005 Chandler St	Group W	Panel	-122.4559432	47.23251568		1										60			540	30			1
Group Y - Public Works Engineering S 46th & Yakima Site Pedestrian Curb Ramps																								
702	S 46th St & S Yakima Ave NW Corner	Group Y	See Plans	-122.4435701	47.21527159			2		1								20	80	895	50			1
704	S 46th St & S Yakima Ave SW Corner	Group Y	See Plans	-122.4435809	47.21511035			2		1								24	32	498	50			1
707	S 46th St & S Yakima Ave NE Corner	Group Y	See Plans	-122.4433435	47.2152725	1		2										24	32	505	30			1
710	S 46th St & S Yakima Ave SE Corner	Group Y	See Plans	-122.4433368	47.2150976			2			1	1						14	81	855	30			1
795	Thompson & Yakima NE Corner	Group Y	See Plans	-122.4437076	47.21473003	1		1										15		135	35			1
796	Thompson & Yakima SE Corner	Group Y	See Plans	-122.4436741	47.21464577			1										31	106	1234	25			1
797	Thompson & Yakima W Side	Group Y	See Plans	-122.4434816	47.21453144			1										28	41	624	25			1
798	Thompson & Yakima E Side	Group Y	See Plans	-122.4433415	47.2145319	1		1										3	0	29	15			1
799	46th & Thompson NE Corner	Group Y	See Plans	-122.4443753	47.21526642			1										22	39	553	40			1
800	46th & Thompson SE Corner	Group Y	See Plans	-122.4441564	47.21510716	1		1										37	147	1657	50			1
826	4303 S G St	Group Y	Panel	-122.440508	47.21833												60			544				1

APPENDIX C
City of Tacoma Soil Management Plan

Soil Management Plan Tacoma Smelter Plume and Commercial/Industrial Testing Requirements Tacoma, Washington

March 29, 2016

Prepared by

City of Tacoma Environmental Services Department and
Landau Associates

Prepared for

City of Tacoma
Tacoma, Washington



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FIGURE

Figure 1. Tacoma Smelter Plume

APPENDICES

Appendix A. Health and Safety Plan

Appendix B. Sampling and Analysis Plan

Appendix C. Hanby Test Kit

LIST OF ABBREVIATIONS AND ACRONYMS

bgs.....	below ground surface
BMP.....	best management practice
City	City of Tacoma
Dickson.....	Wm. Dickson Company's Waller Road Inert Waste Landfill
EC	City of Tacoma's Environmental Compliance (Department)
Ecology.....	Washington State Department of Ecology
EIM	Environmental Information Management (Ecology)
ESD	City of Tacoma's Environmental Services Department
ESL.....	City of Tacoma's Environmental Services Laboratory
ft.....	foot/feet
Hanby	Hanby Soil Test Kit
HASP.....	Health and Safety Plan
LRI	LRI Landfill
mg/kg	milligrams per kilogram
O&M.....	City of Tacoma's Operations and Maintenance (Department)
ppm.....	parts per million
SAP	Sampling and Analysis Plan
SMP	Soil Management Plan
TPCHD	Tacoma-Pierce County Health Department
TPH.....	total petroleum hydrocarbon
TSP	Tacoma Smelter Plume
Waller Road.....	Dickson Company's Waller Road Inert Waste Landfill
XRF	x-ray fluorescence

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1.0 INTRODUCTION

This Soil Management Plan (SMP) is a guide for managing soil potentially contaminated with arsenic, lead, and/or total petroleum hydrocarbons (TPH; gasoline, diesel, heavy oil, and mineral oil) and other specified metals that may be encountered during City of Tacoma (City) capital improvement and maintenance projects. Projects performed within the Tacoma Smelter Plume (TSP) area or within commercial and industrial land use areas of Tacoma, have the potential to encounter soils contaminated with arsenic and lead or TPH and (cadmium, chromium, and mercury), respectively. The goal is to facilitate management of soil risks in a safe, cost-effective, and environmentally appropriate and compliant manner.

This SMP supersedes all previous versions of the plan, including the most recent update¹. This version of the SMP adds additional TPH and metals testing requirements as required by the Tacoma-Pierce County Health Department (TPCHD) and implemented by Wm. Dickson Company's Waller Road Inert Waste Landfill (Dickson). Within 1 year after implementation², the SMP procedures and protocols will be evaluated and updated. This update will be based on evaluation of soil analytical results and soil management effectiveness. The SMP will be modified based on this information and, where possible, more environmentally responsive and cost-effective procedures will be identified.

1.1 Background

The ASARCO copper smelter was located in Ruston, Washington and operated for almost 100 years. During this time, airborne particle discharges from the 562-foot (ft) stack resulted in arsenic and lead soil contamination over an area of approximately 1,000 square miles. This area is the TSP area³. The federally designated Tacoma Smelter Superfund Site is located within the TSP area and includes Ruston and portions of Tacoma. The Tacoma area is approximately 63 square miles. Approximately 21 square miles of Tacoma lies within the portion of the TSP determined by Ecology to have arsenic soil concentrations greater than Model Toxics Control Act cleanup level of 20 parts per million (ppm). For the purposes of this plan, this 21-square mile area within Tacoma city limits and all of Ruston is defined as the TSP area. Figure 1 shows the TSP area.

Originally, the SMP was to address lead and arsenic contamination as described above. In 2014, the TPCHD and Dickson began requiring TPH and metals testing data for soils originating from City capital improvement and maintenance projects located within commercial and industrial land use areas. Commercial and industrial land use areas can potentially contain elevated TPH and metals concentrations in soil related to common business practices; however, this new TPH and metals testing requirement will be applicable even if no indications of TPH and metals contamination are

¹ Landau Associates. 2014. Final: Soil Management Plan, Tacoma Smelter Plume, Tacoma, Washington. April 7.

² Implementation began when plan was final on April 7, 2014.

³ Ecology. 2012. Tacoma Smelter Plume Model Remedies Guidance: Sampling and Cleanup of Arsenic and Lead Contaminated Soils, Toxics Cleanup Program. Publication Number 12-09-086-A. Washington State Department of Ecology. June.

present (i.e., field screening, including visual and olfactory assessment). Commercial and industrial areas of the City subject to these TPH testing requirements are shown on Figure 1; an interactive version is available from the City Environmental Services Department (ESD).

1.2 Applicability

The SMP lead and arsenic testing requirement is applicable to capital improvement and maintenance projects conducted within the TSP area. The SMP's TPH and metals testing requirements are applicable to projects conducted within commercial and industrial land use areas in Tacoma. Also, available historical site information or existing environmental reports can help determine if additional soils tests may be required, or some soil test may not be needed. For example, few sites are likely to have chromium or mercury contamination. Historical site uses can eliminate the potential for the presence of these metals or other compounds on a site. Protocols in this plan will be used on projects for the City ESD and may be also used on projects for the City Public Works Department and Tacoma Public Utilities.

Protocols for projects encountering other soil contaminants such as chlorinated hydrocarbons and contaminated groundwater are not covered in this plan. This plan does not apply to projects within the TSP area that are not managed or conducted by City personnel. This plan is not intended for use by private landowners, developers, or private utility companies. For questions regarding the implementation of this plan, contact Science & Engineering Division, Environmental Services Department at (253) 591-5588.

2.0 SOIL SAMPLE COLLECTION AND ANALYSIS

This section provides the steps for collecting soil samples for arsenic, lead, and TPH and other metals analysis on capital and maintenance projects. Although soil samples will be analyzed for lead and arsenic, it is anticipated that soil management will be dictated by arsenic soil concentrations. On commercial and industrial land use areas within the TSP where soil being disposed of will also require TPH and metals testing, anticipation is that arsenic soil concentrations will remain the primary constituent of concern.

Analytical soil sample collection conducted by City staff on projects within the TSP area (for lead and arsenic) or on projects within commercial and industrial areas (for TPH and other metals) will be conducted in accordance with the Health and Safety Plan (HASP) provided in Appendix A. Consultants and contractors working on City projects will be responsible for developing their own HASP.

2.1 Capital Improvement Projects

Capital improvement projects are generally planned in advance of construction, which allows time to collect and analyze soil samples for arsenic and lead as well as TPH and other metals (if project is also located with a commercial or industrial area of Tacoma) prior to start of construction. Soil sampling will be done in coordination with site geotechnical investigations. Unless otherwise specified by the project manager⁴, all sampling for capital improvement projects will be conducted prior to construction with no additional sampling required during construction. In the event that a project manager requires soil sampling after construction begins, soil samples will be collected by Environmental Compliance (EC) staff and analyzed by Environmental Services Laboratory (ESL) staff. Soil sampling procedures and excavation and disposal procedures for capital improvement projects are described below. Project managers will use professional judgment to adapt these steps to specific projects.

2.1.1 Soil Sampling

Soil samples will typically be collected for arsenic, lead, and TPH and other metals (if applicable) analysis by the geotechnical consultant while collecting geotechnical data from borings, test pits, and other explorations. The geotechnical consultant will conduct sampling in accordance with this SMP and the geotechnical consultant's sampling and analysis plan (SAP)⁵. The ESL will provide jars for metals (arsenic, lead and other metals if required), and TPH soil analysis. The ESL will analyze the samples.

The project manager may direct EC staff to collect soil samples with a hand-operated power auger (power auger) boring as an alternative or supplement to the planned subsurface geotechnical explorations. This may be done on smaller projects or in specific situations where supplemental data

⁴ The term, project manager, refers to the City staff member in charge of the project.

⁵ The geotechnical consultant can choose to adopt the City's SAP presented in Appendix B.

is required to characterize site conditions. The project manager will coordinate between the geotechnical consultant, EC staff, and the ESL. The location and depth of the explorations (i.e., test pits, drill rig, power auger, hand auger, etc.) will be identified in the geotechnical consultant's SAP as approved by the project manager. A minimum of two explorations will be completed per project. The number of explorations per project will conform to the following guidelines:

Length of Excavation (ft)	Number of Borings
< 1,000	2
≥ 1,000	2 plus 1 every additional 500 ft

The highest concentrations of arsenic and lead are anticipated to occur within 3 ft of the ground surface and above native soil. Discrete soil samples for lead and arsenic **laboratory analysis** will be collected in each exploration as described below:

- From ground surface (which is soil below asphalt, subgrade materials, or gravel) to 1 ft depth, soil samples will be collected at 6-inch intervals. Therefore, the first two samples will be collected from 0 to 6 inches and 6 to 12 inches below ground surface (bgs; representing the 0 to 1 ft depth interval).
 - From 1 ft depth sample collection will continue at 1 ft intervals to a depth of 3-feet bgs. Additional soil samples will be collected at 1-foot intervals if a clear change in color or texture is encountered. This will likely indicate fill from a different source area. Soil samples will be collected at 1-foot intervals through the different fill zone to the end of boring or until native soil is encountered.
- If near surface conditions (0 to 3 ft) result in inadequate soil sample recovery from a borehole, the driller will pull out the auger (i.e., drill rig) and samples will be collected by hand (i.e., power auger, hand auger, trowel, or shovel). If sample collection is not practicable after auger removal, the drill rig will be offset from the original location to re-drill the borehole to 3 ft depth.
- Soil samples collected from 0 to 3 ft bgs will be analyzed for arsenic and lead.

Soil samples collected at depths greater than 3 ft will be sent to the ESL and placed on hold. These samples will be analyzed for arsenic and lead only if directed by the project manager. Based on initial soil sample results, the project manager will determine whether additional borings and sampling are appropriate to adequately characterize the limits of contaminated soil. Soil analytical results will be documented in the geotechnical report as a short section in the text with an accompanying table. The ESL analytical data report will be included as an attachment or appendix.

When soils samples are collected for **field analysis** with a handheld XRF instrument samples will be collected in each exploration zone as described below:

- From ground surface to 1 ft depth, soil samples will be collected at 6-inch intervals. Therefore, the first two samples will be collected from 0 to 6 inches and 6 to 12 inches below ground surface (bgs; representing the 0 to 1 ft depth interval). Always analyze both soil

samples with the XRF instrument. If both samples (or the second sample, 6 to 12-inches) XRF results are <20 ppm arsenic and <250 ppm for lead sampling is complete.

If necessary (>20 ppm arsenic or >250 ppm lead in soil sample above), soil samples will be collected at 1-foot intervals from 1-ft bgs to 3-feet bgs. If a clear change in color or texture is encountered additional soil samples will be collected below 3-feet bgs. Soil samples will be collected at 1-foot intervals through the different fill zone to the end of boring or until native soil is encountered.

Soil samples for TPH will be collected in each exploration as described below:

- Soil cuttings and samples will be field inspected (i.e., visual and olfactory inspection) for signs of TPH contamination. If TPH contamination is evident, the on-site geotechnical engineer or geologist should attempt to identify the zone of TPH contamination in the exploration and collect discreet samples to adequately characterize the limits (boundary) of the contaminated soil. The number of samples will vary based on the extent of contaminated media and the completed depth of the exploration.
- If TPH contamination is not evident, one composite soil sample will be collected from each exploration within commercial and industrial zones.
- If near surface conditions (0 to 3 ft) result in inadequate soil sample recovery from a borehole, the driller will pull out the drill rig tooling and samples will be collected by hand (i.e., power auger, hand auger, trowel, or shovel) from the side walls of the borehole. If sample collection is not practicable after drill tooling removal, a new shallow boring will be offset from the original location in order to collect a representative sample of the top 3 ft.

Based on initial soil sample results, the project manager will determine whether additional shallow excavations and sampling are necessary to adequately characterize the limits of the contaminated soil. Soil analytical results will be documented in the geotechnical report as a short section in the text with an accompanying table. The ESL analytical data report will be included as an attachment or appendix.

2.1.2 Soil Excavation and Disposal

Based on field observations and soil analytical results, the project manager will separate areas and depths of planned soil excavation into four categories:

Soil Category	Arsenic (ppm)	Lead (ppm)	Gasoline (mg/kg)	Diesel, Heavy Oils, and Mineral Oils (mg/kg)
A	< 20	< 250	< 31	< 201
B	20-500	250-5,000	31-60	201-400
C	> 500	> 500	> 60	> 60
D	Smelter slag	Smelter slag	N/A	N/A

mg/kg = milligrams per kilogram

N/A = not applicable

Soil will be handled for disposal as directed by the project manager according to the following guidelines:

Soil Category	Reuse as Clean Fill or Take to Inert Landfill	Place Back in Excavation	Subtitle C or D Landfill
A	Yes	Yes	No
B	No	Yes (conditional)	Yes
C	No	No	Yes
D	No	No	Yes

- For the purposes of this plan, Category A soil will be considered not contaminated. Categories B, C, and D soil will be considered contaminated.
- Category A soil taken to an inert waste landfill will be taken to Dickson, unless directed for other use or to another disposal location by the project manager.
- Category A or B (conditional) may only be placed back in the excavation if it is structurally suitable for reuse as specified in the geotechnical report for the project.
- Category B soil taken to a Subtitle C (solid waste landfill) will be taken to LRI Landfill (LRI) unless directed for other use or to another disposal location by the project manager.
- Category B (conditional) soil may only be placed back in the excavation when the excavation area will be capped with impervious material, such as, asphalt or concrete, or 18 inches of clean fill. When Category B soil is placed in the excavation, documentation will be made in the project records that describe the area and depth where the soil is located.
- Category C and D soil taken to a Subtitle C (solid waste landfill) will be taken to LRI , unless directed to another solid waste landfill by the project manager
- Excavated soil will be handled in accordance with the City's Stormwater Best Management Practices (BMPs).
- Contaminated soil will be handled in accordance with project Control and Management of Contaminated Materials specifications.
- A Waste Disposal Authorization form (www.tpchd.org/files/library) will be prepared and submitted to TPCHD for approval for contaminated soil that is required to be sent to a solid waste landfill⁶.
- Soil stockpiling on capital project sites will be addressed in the project specifications.

2.2 Maintenance Projects

Maintenance projects generally only require small amounts of soil excavation and disposal; however, there is typically limited time to collect and analyze soil samples prior to construction. Consequently, an x-ray fluorescence instrument (XRF)⁷ will be utilized to provide arsenic and lead concentration data and a Hanby Soil Test Kit (Hanby) will be utilized to provide TPH data⁸. The XRF and Hanby are

⁶ If approved by the TPCHD, soil may be disposed of under the City annual waste disposal authorization.

⁷ The City is using a Thermo Scientific Niton XL 3t955 Ultra model XRF.

⁸ **Soil samples NOT collected in commercial and industrial zones will NOT be analyzed for TPH with the Hanby Test Kit, unless there are visual or olfactory indications of TPH contamination.**

intended for quick field determination of soil concentrations for these constituents to facilitate field decisions for immediate soil disposal. Procedures for using the Hanby are provided in Appendix C. Initially, a sampling evaluation procedure will be implemented to verify the XRF data. This procedure consists of collecting at least one sample from each project for submittal to the ESL for laboratory analysis to evaluate XRF performance. Once sufficient comparative data has been collected, it is expected that the sampling evaluation procedure will be eliminated and documented in an updated version of the SMP.

A minimum of one sample location will be designated for each maintenance project. Sample locations will be selected to provide geographic coverage of the project footprint. For example, if the project area has two sample locations, one location would be sited in the north half of the project and the second location would be sited in the south half of the project. The number of sample locations will conform to the following guidelines:

Project Area (square feet)	Minimum Number of Sampling Locations
< 200	1
200-400	2
400-1,000	4
1,000-10,000 (0.25 acre)	8

2.2.1 Soil Sampling

Operations and Maintenance (O&M) staff will typically collect the soil samples in accordance with the SMP and SAP (Appendix B). If the ground surface at a maintenance project is permeable (e.g., grass, soil, or gravel), soil samples will be collected using hand sampling techniques such as power auger, hand auger, or shovel prior to site excavation. If the soil contamination depth exceeds the practicable hand sampling depth (5 ft bgs), remaining soil sampling will be conducted with a backhoe or geoprobe. If the site is covered with impervious material such as asphalt or concrete pavement, or project lead-time does not allow for pre-sampling, samples will be collected by hand and backhoe, as appropriate, during site excavation. Soil sampling, excavation, and disposal procedures for maintenance projects are described below:

- O&M staff will conduct soil sampling. ESL or EC will provide alternate sampling staff, should the need arise.
- Soil samples will be collected for arsenic, lead, and TPH analysis in accordance with the SAP provided in Appendix B as generally described below:
 - When present, remove existing pavement and subgrade from the sampling area. This material is assumed to not be representative of subsoil conditions.
 - From ground surface to 1 ft depth, soil samples will be collected at 6-inch intervals. Therefore, the first two samples will be collected from 0 to 6 inches and 6 to 12 inches below ground surface (bgs). Always analyze both soil samples with the XRF instrument. If both samples or second sample (6 to 12-inches) XRF results are <20 ppm arsenic and <250 ppm for lead sampling is complete.

- For the remainder of the exploration (borehole or test pit) analyze soil samples at 1-foot intervals until sample XRF result is <20 ppm arsenic and <250 ppm lead, then sampling is complete.
 - If a clear change in soil color or texture is encountered this will likely indicate fill from a different source area. Additional soil samples will be collected at 1-foot intervals through the different fill zone to the end of boring or until native soil is encountered.
 - Complete field inspection (i.e., visual and olfactory inspection) of soil samples for indications of TPH contamination.
- Analyze arsenic and lead samples on site with a hand-held XRF analyzer.
 - If samples exhibit no indications of TPH contamination, analyze one composite sample with a Hanby when samples are collected within commercial or industrial zones. If samples do exhibit indications of TPH contamination, analyze all samples with a Hanby.
 - If XRF and Hanby sample analysis of the samples collected from the exposed ground surface to 36 inch depth are defined as Category A soil (Section 2.1.2) then soil sampling and analysis below 36 inches will not be conducted unless directed by the project manager.

2.2.2 Soil Excavation and Disposal

Soil samples will be classified according to the four soil categories defined in Section 2.1.2 based on the XRF and Hanby analysis. The project manager will decide on sample disposal for each category in conformance with procedures documented in Section 2.1.2. Additional procedures used to make soil disposal decisions include:

- Transport soil offsite for disposal. Excavated soil may be stockpiled at the project site (e.g., for re-use), or at a City stockpile yard, as needed. All stockpile areas will conform to City stormwater BMPs.
- All soil loaded into a truck for transport will be sampled (Section 2.2.1) and categorized (Section 2.1.2) prior to loading. Soil that is not sampled will be assumed to be Category C.

2.2.3 Soil Stockpiling Protocols

Soil stockpiles will be maintained to combine similar soil quality categories to optimize transport and disposal options. Stockpiling protocols are:

- Stockpiles will be maintained a maximum of 30 days prior to disposal.
- Soil stockpile locations at the designated soil stockpile area will be clearly identified according to soil quality category. Soil sent to the soil stockpile area will typically be categorized prior to stockpiling. If soil is not sampled it will be assumed to be Category C until soil stockpile sampling is completed. The SAP (Appendix B) provides procedures for soil stockpile sampling.
- The volume, origin, and analytical test results for each project contributing soil to the stockpile will be documented.

3.0 RECORD KEEPING

Lead and arsenic analytical results generated by the ESL will be incorporated into the laboratory database. Soil sample analytical results generated in the field with the handheld XRF analyzer will also be submitted to the ESL for inclusion into the laboratory database. All arsenic and lead analytical data collected during City projects conducted within the TSP area will be added to an environmental geographic information system layer that will be developed in Government Made Easy (GovME; www.govme.org) to provide these data for future projects and to better delineate the TSP boundary. In addition, lead and arsenic data will be shared with Ecology for inclusion in their Environmental Information Management (EIM) system. EIM submittals will follow Ecology instructions for data submittals (<http://www.ecy.wa.gov.eim/>).

Soil sample analytical results generated in the field with the Hanby will not be submitted to the ESL. EC staff will be responsible for recording field data on the appropriate chain of custody form. All soil TPH analytical data collected during City projects conducted within commercial and industrial areas of the City will be retained by the City for a period of 1 year.

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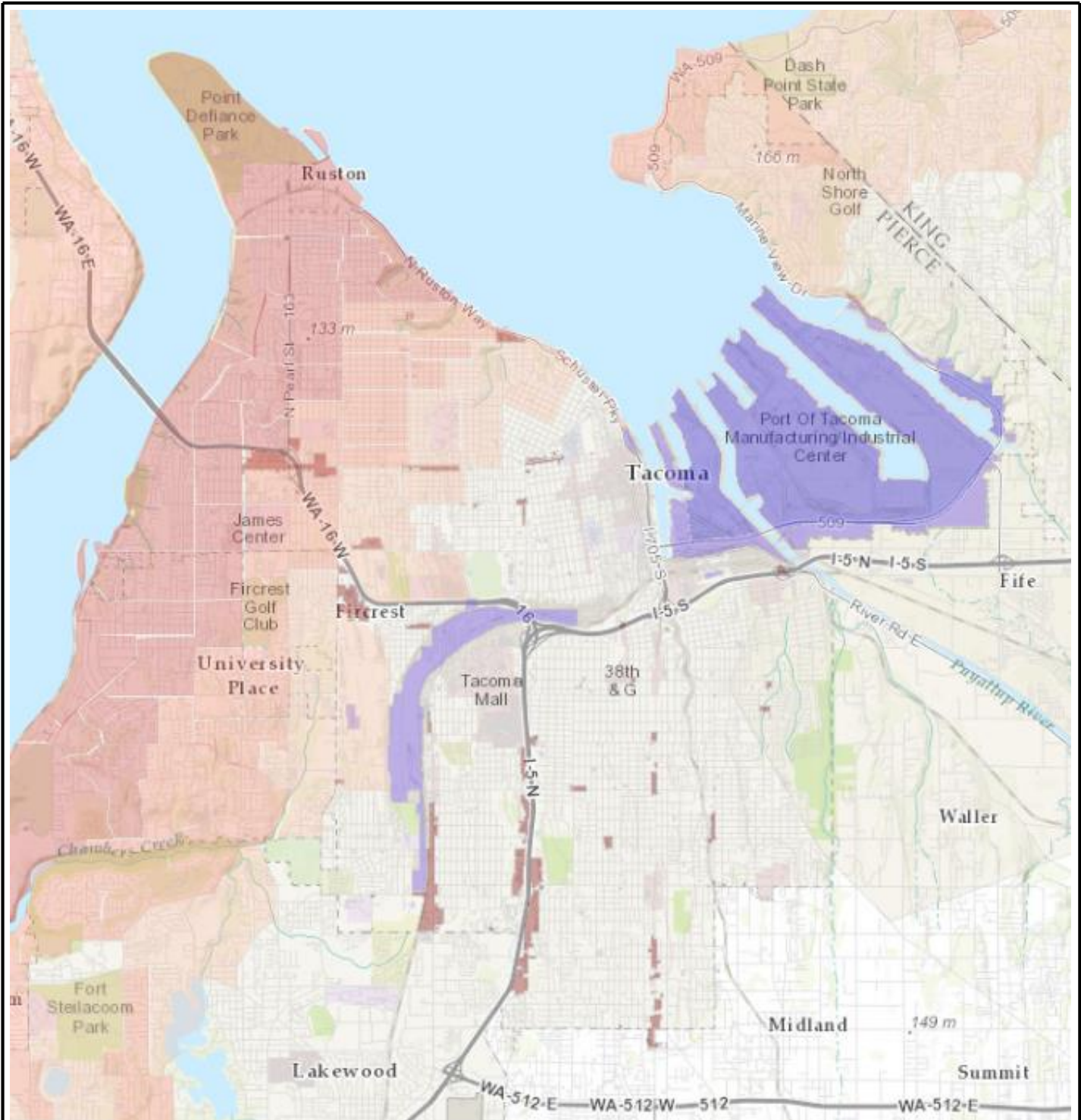
4.0 USE OF THIS PLAN

This Soil Management Plan was prepared by the City of Tacoma with assistance from Landau Associates for the exclusive use of the City of Tacoma for specific application to City of Tacoma projects. The reuse of information, conclusions, and recommendations provided herein for the project or for any other project, without review and authorization by Landau Associates and the City of Tacoma shall be at the user's sole risk.

SMM/EFW/jrc

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Notes:

1. Figure not to scale.
2. Areas of elevated arsenic and/lead concentrations shown in pink.
3. Industrial and commercial areas of Tacoma shown in purple.
4. Interactive version of this figure is available from City of Tacoma Environmental Services Department.



Source: City of Tacoma, Bureau of Land Management, Esri, HERE, DeLorme, INCREMENT P, USGS, METI?NASA, NGA, EPA, USDA

Health and Safety Plan

HEALTH AND SAFETY PLAN LEAD, ARSENIC, AND TOTAL PETROLEUM HYDROCARBON ANALYSIS

Prepared by
Landau Associates, Inc.
and
Environmental Services Department
City of Tacoma



TACOMA SMELTER PLUME ENVIRONMENTAL HEALTH AND SAFETY PLAN FOR ARSENIC AND LEAD SAMPLING

NOTE: This form has been prepared by Landau Associates on behalf of the City of Tacoma for exclusive use by designated City staff during lead, arsenic, and total petroleum hydrocarbon environmental sampling. This form only addresses environmental hazards related to chemicals arsenic, lead, and total petroleum hydrocarbons. Environmental hazards related to other chemicals and physical hazards are not addressed here.

Attach Pertinent Documents/Data Fill in Blanks As Appropriate

Prepared by:	Landau Associates	Reviewed by:	
Date:	March 29, 2016	Date:	

A. WORK LOCATION DESCRIPTION

- 1. Project Name:** Environmental soil sampling for City of Tacoma (City) Environmental Services Department (ESD) Capital and Maintenance Projects within the Tacoma Smelter Plume (TSP) and commercial and industrial land use areas of the City.
- 2. Location:** Tacoma, Washington
- 3. Anticipated Activities:**
 - 1) Soil sampling within City project excavation areas (typically roadway and associated right-of-way) using primarily hand tools, and backhoe. Analysis of samples using X-ray fluorescence (XRF) and Hanby Petroleum Test Kit (Hanby) in accordance with the sampling and analysis plan (SAP; Appendix B).
 - 2) Soil sampling for laboratory analysis from stockpiles at the designated stockpile location at a City-owned property.
- 4. Project Size:** Project-specific; check with the City project manager or crew lead.
- 5. Surrounding Population:**
 - 1) Residential, commercial, and industrial. Project-specific; check GovME.
 - 2) Designated stockpile location is in a commercial/industrial area.
- 6. Topography:**
 - 1) Project-specific; check GovME "surface features" layer for surface contours.
 - 2) The designated stockpile location is relatively flat.
- 7. Anticipated Weather:** Season-dependent; check forecast.

- 8. Unusual Features:** 1) Project-specific; see TSP map [Figure 1 of the Soil Management Plan (SMP)] for anticipated arsenic concentrations land use map (interactive map provided by ESD) for information regarding total petroleum hydrocarbon (TPH) testing requirements.

2) Not applicable to designated stockpile location.

- 9. Site History:** The ASARCO copper smelter was located in Ruston, Washington and operated for almost 100 years. During this time, discharges from the 562 foot (ft) smokestack caused soil arsenic and lead contamination over an area of approximately 1,000 square miles. This area is known as the TSP. The federally designated Tacoma Smelter Superfund Site is located in the TSP and includes the town of Ruston and portions of Tacoma. See Figure 1 of the SMP.

In 2014, the Tacoma-Pierce County Health Department (TPCHD) and Dickson Company's Waller Road Inert Waste Landfill (Dickson) began requiring that all soil disposal for City projects located in commercial and industrial areas be tested for TPH regardless of field screening indications of contamination. See interactive map provided by the ESD for commercial and industrial areas of the City subject to these TPH testing requirements.

B. HAZARD DESCRIPTION

1. Background Review:

Approximate arsenic and lead concentrations have been defined by Ecology. Arsenic concentrations are presented in Figure 1 of the SMP. TPH concentrations will vary based on the site.

2. Hazardous Level: ☒ Level D

Justification: Existing data regarding site conditions from the *Tacoma Smelter Plume Model remedies guidance, June 2012, Department of Ecology*.

3. Types of Environmental Hazards: (Attach additional sheets as necessary)

- A. ☒ Chemical ☒ Inhalation
☒ Ingestion ☒ Skin Contact

Describe: Potential contact with contaminants (arsenic, lead, and TPH). The Hanby uses chemical reagents and solvents to extract and qualify TPH constituents in soil. Wear safety glasses and gloves and avoid fumes from the solvents and any waste material. The Hanby may only be used by personnel trained to operate the Hanby. Follow operational safety protocol per the manufacturer's instructions.

B. ☒ Radiation

Describe: The XRF laser operates when the machine is in analysis mode. The laser produces a small amount of radiation. To prevent human exposure to the radiation, ensure that the analysis mode is only in the “on” position when the XRF laser is set on a soil sample. The XRF laser may only be used by personnel trained to operate the XRF. Follow operational safety protocol per the manufacturer’s instructions.

4. Nature of Hazards:

- | | |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Air | <u>Describe:</u> Potential inhalation of contaminated dust particles and fumes. |
| <input checked="" type="checkbox"/> Soil | <u>Describe:</u> Potential for direct contact with or ingestion of contaminated soil. |
| <input checked="" type="checkbox"/> Surface Water | <u>Describe:</u> Potential for direct contact with contamination in surface water that has come into contact with contaminated soil. |

5. Chemical Contaminants of Concern

Contaminant	PEL	IDLH	Source/Quantity Characteristics	Route of Exposure	Symptoms of Acute Exposure	Instruments Used to Monitor Contaminant
Arsenic	0.002 mg/m ³	5.0 mg/m ³	Soil concentrations up to 100 mg/kg or greater	Inhalation, ingestion, dermal contact, eye contact	Irritation of skin, respiration distress, ulceration of nasal septum (potential carcinogen)	Implement dust control measures (use of a dust meter at the discretion of City project manager)
Lead	0.05 mg/m ³	100 mg/m ³	Soil concentration up to 200 mg/kg or greater	Inhalation, ingestion, dermal contact, eye contact	Weakness, malnutrition, constipation, abdominal pain, irritation to eyes	Implement dust control measures (use of a dust meter at the discretion of City project manager)
Gasoline	300 ppm	500 ppm	Soil and groundwater at unknown concentrations	Inhalation, ingestion, percutaneous absorption, and skin and eye contact	Nervous excitation, insomnia, gastrointestinal symptoms, encephalopathy, anxiety, delirium, delusions, convulsions, and acute psychosis	PID monitoring
Diesel	N/A	N/A	Soil and groundwater at unknown concentrations	Inhalation, ingestion, percutaneous absorption, and skin and eye contact	Nervous excitation, insomnia, gastrointestinal symptoms, encephalopathy, anxiety, delirium, delusions, convulsions, and acute psychosis	Olfactory, visual, PID monitoring
TPH	300/500 ppm	500 ppm	Soil and groundwater at unknown concentrations	Inhalation, ingestion, percutaneous absorption, and skin and eye contact	Skin and mucous membrane irritation, dizziness, nausea	Olfactory, visual, PID monitoring

Notes:

- IDLH = immediately dangerous to life or health
- mg/kg = milligrams per kilogram
- mg/m³ = milligrams per cubic meter
- N/A = not applicable
- PEL = permissible exposure limit
- PID = photoionization detector
- ppm = parts per million

C. PERSONAL PROTECTIVE EQUIPMENT

1. Level of Protection

☒ Level D. If airborne particulate matter is observed, engineering controls, such as wetting of the soil, must be implemented. Consult with the City project manager in the event that conditions do not allow for the control of airborne particulate matter.

2. Protective Equipment (specify probable quantity required)

☒ Field clothing; long sleeves and pants, rain gear (weather-dependent). Highly visible safety vests while working near heavy equipment.

☒ Gloves; Type: Nitrile

☒ Safety Eyeglasses

☒ Hard Hat: As required per standard City safety protocols

☒ Safety Boots with Steel Toe/Shank: As required per standard City safety protocols.

3. Monitoring Equipment

☒ Operate XRF in accordance with manufacturer's safety protocols. Keep equipment turned off on top of soil sample for analysis.

☒ Optional: Dust meter at the discretion of the City project manager.

D. DECONTAMINATION

PERSONAL DECONTAMINATION

☒ Wash hands and face with water and soap. Minimize hand to mouth actions while on site. Wash all non-dedicated clothing separately.

☒ Wash boots prior to leaving site.

EQUIPMENT DECONTAMINATION

☒ All non-dedicated sampling equipment (e.g., stainless steel spoons and bowls, etc.) will be decontaminated using the following steps:

- 1) Remove large soil debris using paper towels and discard paper towels in trash bag
- 2) Tap water and Alconox® soap wash (using spray bottle)
- 3) Tap water rinse (using spray bottle)

E. PERSONNEL

All individuals conducting soil sampling and screening, and soil stockpile management (collectively soil remedial investigations and actions) at City maintenance and capital projects will have appropriate Occupational Safety and Health Administration (OSHA) health and safety training and certification.

EMERGENCY FACILITIES AND NUMBERS

There are four primary hospitals within the likely project areas. The four hospitals are shown on Attachment A; Tacoma districts are also shown for spatial reference. Contact information for each hospital is presented below by Tacoma Districts:

Central, Eastside, New Tacoma, North End, South End, South Tacoma, and West End:

1. Allenmore Hospital and Medical Center
1901 South Union Avenue
Tacoma, WA 98405
Telephone: (253) 459-6633
2. Saint Joseph Medical Center
1717 South J Street
Tacoma, WA 98405
Telephone: (253) 426-4101
3. Tacoma General Hospital
315 Martin Luther King Jr Way
Tacoma, WA 98405
Telephone: (253) 403-1000

Northeast:

1. Virginia Mason Medical Center
33501 1st Way South
Federal Way, WA 98003
Telephone: (253) 838-2400

***Emergency Transportation Systems (Fire, Police, Ambulance) – 911

Emergency Contacts	Office Phone	Cell Phone
Kerry James (maintenance projects)	(253) 502-2180	
Terry Forslund (capital projects)	(253) 502-2298	(253) 377-6962

In the event of an emergency, do the following:

1. Call for help as soon as possible. Call 911. Give the following information:
 - WHERE the emergency is – use cross streets or landmarks
 - PHONE NUMBER you are calling from
 - WHAT HAPPENED – type of injury
 - WHAT is being done for the victim(s)
 - YOU HANG UP LAST – let the person you called hang up first.
2. Working in areas with arsenic- and lead-impacted soil by itself is unlikely to create a situation requiring an emergency response; however, in the event that other conditions (e.g., physical injury, unanticipated contamination, etc.) arise resulting in an emergency, do the following. If the victim can be moved, paramedics will transport to the hospital. If the injury or exposure is not life threatening, clean the individual of visible dirt first. If cleaning is not feasible, take other appropriate actions to protect paramedics and hospital personnel from contamination exposure.

**ENVIRONMENTAL HEALTH AND SAFETY PLAN
APPROVAL/SIGN OFF FORMAT (to be updated annually)**

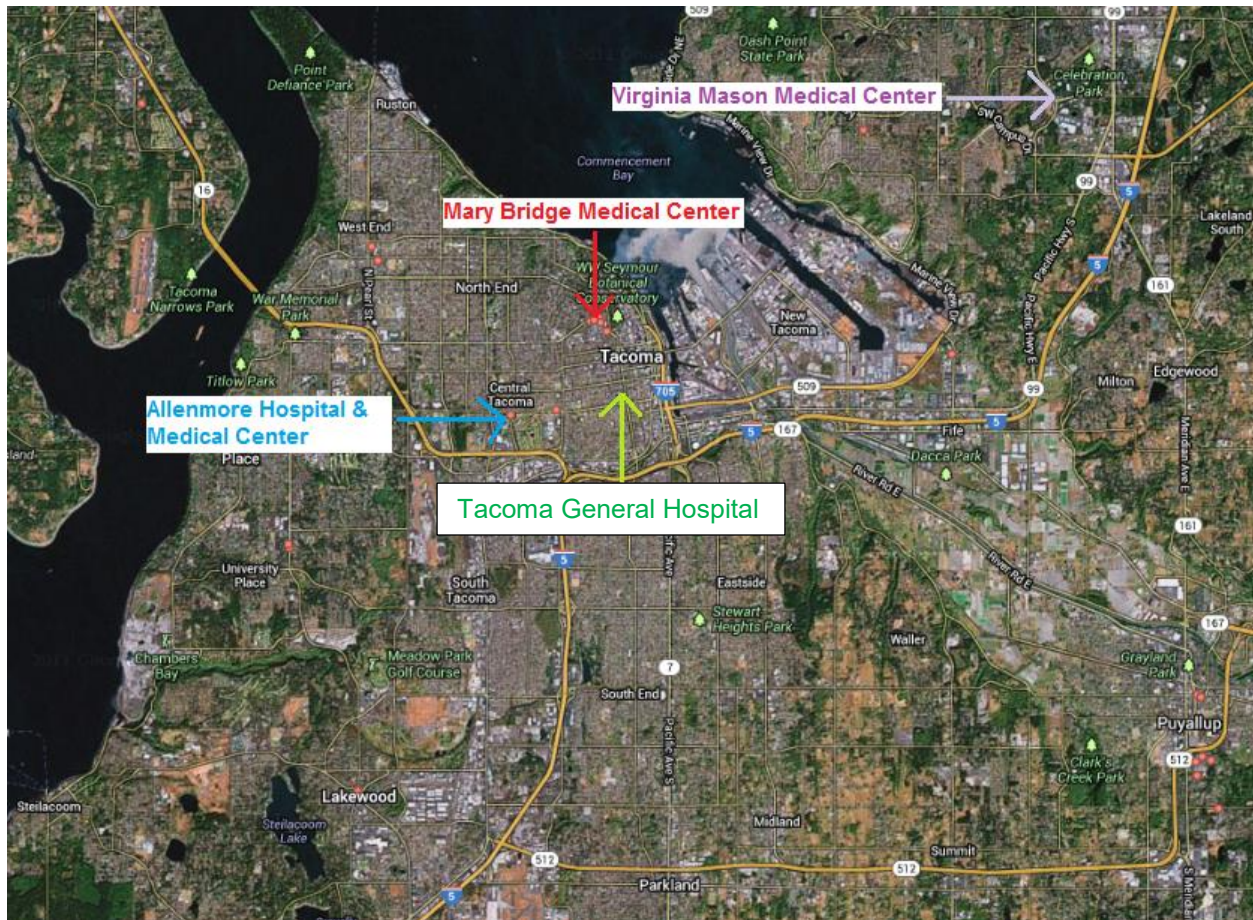
I have read, understood, and agreed with the information set forth in this Health and Safety Plan (and attachments) and discussed in the Personnel Health and Safety briefing.

Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Name	Signature	Date
Site Safety Coordinator	Signature	Date
City of Tacoma Health and Safety Manager	Signature	Date

Personnel Health and Safety Briefing Conducted By:

Name	Signature	Date
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Attachment A Hospital Locations



Sampling and Analysis Plan

Sampling and Analysis Plan Tacoma Smelter Plume and Land Use Testing Requirements Tacoma, Washington

February 22, 2016

Prepared by

City of Tacoma Environmental Services Department and
Landau Associates

Prepared for

City of Tacoma
Tacoma, Washington



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Tacoma, WA 98402
(253) 926-2493

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TABLES

- Table 1. Sampling and Analysis Plan Field Equipment Checklist
- Table 2. Analytical Laboratory Sample Containers, Preservatives, and Hold Times

LIST OF ABBREVIATIONS AND ACRONYMS

City	City of Tacoma
COC	chain-of-custody
EC	City of Tacoma's Environmental Compliance Department
ESL	City of Tacoma's Environmental Services Laboratory
Hanby	Hanby Soil Test Kit
HASP	Health and Safety Plan
O&M	City of Tacoma's Operations and Maintenance Department
SAP	Sampling and Analysis Plan
SMP	Soil Management Plan
SOP	Standard Operating Procedure
TPH	Total Petroleum Hydrocarbon
XRF	x-ray fluorescence

1.0 INTRODUCTION

This sampling and analysis plan (SAP) describes soil-sampling procedures for City of Tacoma (City) staff related to City capital and maintenance projects within the Tacoma Smelter Plume area or commercial and industrial land use areas in Tacoma, Washington. This SAP is an appendix to the Soil Management Plan (SMP). The primary objective of this SAP is to document procedures and methods for field preparation, sampling, analysis, and data reporting for arsenic lead, total petroleum hydrocarbon (TPH) and cadmium, chromium, mercury (metals) soil concentration data to be used for:

1. Soil disposal decisions during implementation of capital and maintenance projects
2. Submittal into the City's Government Made Easy (GovME) mapping database (arsenic and lead only)
3. Submittal into Washington State Department of Ecology's Environmental Information Management system (arsenic and lead only).

In accordance with the SMP, this SAP will be implemented by City Environmental Services Department, specifically for Operations and Maintenance Department (O&M), Environmental Services Laboratory (ESL), and Environmental Compliance (EC) staff. Field staff from EC will typically be involved with the capital projects and O&M staff will typically be involved with the maintenance projects and stock pile yard management activities. Outside consultants, working on City projects, will be responsible for developing their own SAP that is generally consistent with this SAP, or they may choose to adopt this SAP. The organization of this SAP document is as follows:

1. Section 2.0 presents City project soil sampling procedures
2. Section 3.0 presents stockpile soil sampling procedures
3. Section 4.0 equipment decontamination.

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2.0 PROJECT SOIL SAMPLING

This section presents on-site procedures for field preparation, soil sampling, use of the x-ray fluorescence (XRF), Hanby Test Kit, and laboratory samples. The sampling procedures outlined in this section apply primarily to maintenance projects; however, the protocols may be utilized on capital projects as directed by the project manager.

2.1 Field Preparation

City staff conducting sampling will be trained to use an XRF handheld analyzer and Hanby Test Kit (Hanby). Sampling staff will be familiar with the SMP, the health and safety plan (HASP; Appendix A to the SMP) and the XRF and Hanby instruction manuals prior to sampling. Sampling staff will also be familiar with the XRF and Hanby standard operating procedures (SOP) developed by the ESL. A copy of each SOP is located in the respective instrument cases.

Sampling staff will assemble field equipment prior to sampling. The type of equipment necessary to accomplish sampling will be dependent on the depth of excavation and ground surface material (e.g., grass versus pavement). Consequently, sampling staff should familiarize themselves with project details prior to sampling. A field equipment checklist is presented in Table 1.

2.2 Soil Sampling Procedures

Sampling will be conducted at locations and depths specified in the SMP. This will consist of collecting samples at regular intervals below the ground surface. If possible, hand tools or a power auger will be used to collect samples and samples will be analyzed in advance of site excavation. For sites where there is a hard surface (e.g., concrete or asphalt) that is difficult to dig through or where emergency work limits the time available for sample preparation, samples will be collected during construction. Sampling during construction may be conducted with the use of heavy equipment such as a backhoe. If a backhoe is used during sampling activities, sampling staff will explain the sampling approach to the equipment operator prior to excavation.

Excavation depth is measured from the ground surface. For the purpose of this plan, ground surface starts beneath pavement and subgrade material or beneath grass, leaves, gravel, or debris on the surface. Typically, samples will be collected at 6-inch intervals over the first foot, and at 12-inch intervals below the first foot.

The following protocols provide a step-by-step XRF and (if applicable) Hanby sampling procedure:

1. Select a soil sampling location within the excavation area and identify it (e.g., S1, S2, etc.).
2. Determine the sample location coordinates using the XRF or a hand-held GPS. Record the sample location coordinates in the field log.
3. Using a permanent marker, label at least four Ziploc® bags with sample numbers for analysis:
 - a. Sample location (e.g., S1)

-
- b. Sample depth interval in inches (i.e., 0-6; 6-12, 12-24, 24-36).
 4. Use a clean pickaxe and/or shovel to remove subgrade or surface material, then dig a hole and remove enough soil to reach the bottom of the sample interval. Note that the first sample interval will be directly beneath the subgrade or surface material (0-6 inches).
 5. Use a clean trowel or spoon to collect a soil sample that is composited throughout the sample interval. Scrape soil from the side of the hole or excavation and place into a stainless steel bowl. Avoid collecting gravel, pebbles, rocks, and organic material like leaves, roots, and stems. If it is raining, avoid getting the sample wet.
 6. Mix the soil thoroughly in a clean stainless steel bowl using a clean stainless steel spoon. Document soil characteristics in the field log, including soil texture (sand, gravel, silt, etc.), color, and moisture content (dry, moist, or wet).
 7. Transfer the soil to a Ziploc or whirlpak bag. Analyze the sample by placing the XRF probe window directly against the bag. Read the arsenic and lead concentration directly from the instrument display. For samples collected in commercial or industrial zones read the cadmium, chromium, and mercury directly from the instrument display.
 8. Record the XRF sample number, sample result, and the sample error for arsenic and lead in the XRF instrument database.
 9. Label the XRF sample identification based on the following notation: Sample location number, depth (in inches) at bottom of sample interval, date, and the analysis method (X for XRF). For a given project, it is anticipated that there could be up to 10 sample locations if the project is large, but not likely up to 100. Therefore, the sample location notation will have two digits to cover sample locations ranging from 1 to 99. For example, the sample identification notation for the first sample at a project would be: S01-06-20140325(X) represents:
 - a. Sample location number 1 (S01)
 - b. Sample interval 0 to 6 inches (06)
 - c. Sample collected on March 25, 2014 (20140325)
 - d. Analysis method refers to an XRF result (X)
 10. For the next sample (e.g., 6 to 12 inches), repeat steps 4 through 9. In between samples and subsamples, clean equipment according to procedures in Section 4.0.
 11. After completing the XRF analysis, prepare the 6- to 12-inch depth sample for laboratory analysis.
 12. At the end of each week, download XRF data at the ESL.
- If completing a Hanby analysis, complete the steps listed below. If not completing a Hanby analysis, proceed to Step 23:
13. Field screen individual Ziploc samples for visual or olfactory evidence of TPH contamination. If evidence is present, analyze each sample separately. If evidence is not present, combine samples into one Ziploc bag and proceed with analysis.
 14. Place one of the beakers on the balance and turn it on. It automatically zeros.
 15. Add 5 grams of soil to the beaker with spatula spoon.

16. Remove one of the soil extraction ampoules from the foam block, hold it firmly on a flat surface, and snap off the top. Empty the ampoule into the beaker.
17. Chop up the soil sample with the spatula and stir it in the solvent for 1 minute. If the soil is a clay (dense, “sticky” sample), it may be necessary to “smear” the soil under the solvent to insure extraction.
18. Remove one of the test tubes from the foam. Carefully pour the solvent from the beaker into the test tube up to the marked line.
19. Take one of the color development vials out of the jar, remove the cap, and carefully empty all the white powder into the test tube.
20. Firmly screw the cap on the test tube and vigorously shake the tube for 15 seconds. Over the next 2 minutes, periodically shake the tube for 5 seconds.
21. Compare the color of the solid material at the bottom of the test tube with the calibration photographs in the included photobook (Calibration Photobook included in Hanby manual). As soon as you have finished the test, record the results. If possible, take a photograph of the sample against the appropriate photobook (included in Hanby) for your records.
22. Empty the liquid from the test tube into the waste bottle. The colored materials at the bottom of the tube should remain in the tube. The waste bottle can be retained with the kit until it is full. Full waste bottles and used test tubes can be disposed of at the Environmental Services Laboratory at Center for Urban Waters (326 East D Street) or the City of Tacoma Household Hazardous Waste drop-off at the Tacoma Recovery & Transfer Center (3510 South Mullen Street).
23. Unused soil can be placed back in the excavation or disposal container (i.e., truck or bucket).

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3.0 SOIL STOCKPILE SAMPLING

Soil from capital and maintenance projects may be stockpiled temporarily prior to final disposal. Stockpiles will be located at the City's Dock Street yard. If the soil was tested prior to stockpiling, additional testing should not be necessary as long as proper soil stockpile management and tracking occurs. When additional sampling is required (e.g., when sampling has not been done at the project site), it will be conducted by O&M staff. Stockpile samples will be analyzed at the ESL. This section presents soil stockpile sampling procedures for field preparation, stockpile designation, sampling, and laboratory analysis.

3.1 Field Preparation

City staff conducting stockpile sampling will be familiar with the SMP and the HASP (Appendix A to the SMP). Sampling staff will assemble field equipment prior to sampling. The number of samples is dependent on the size of the stockpile. Consequently, sampling staff should familiarize themselves with project details prior to sampling. A field equipment checklist is presented in Table 1.

3.2 Sampling Procedures

O&M staff will be responsible for managing on-site stockpiles. O&M staff will visually examine and document the approximate volume of each stockpile. The number of samples to be collected per stockpile will be determined using the following guidelines:

Stockpile Sampling Frequency

Stockpile Volume (cubic yards)	Minimum Number of Composites
≤ 500	2
> 500	4

Each composite will consist of six subsamples. The following protocols provide a step-by-step sampling procedure:

- Estimate stockpile volume. Subdivide the stockpile into two or four sections depending on stockpile volume (see above table).
- Using a permanent marker, label a wooden stake with the stockpile identification number that includes the stockpile number and date. For a given stockpile yard sampling event, it is anticipated that there could be up to 10 stockpiles or more, but less than 100. Therefore, the sample location notation will have two digits to cover sample locations ranging from 1 to > 10. For example, the stockpile identification notation SS01-20160130 represents:
 - Stockpile #1 (SS01)
 - Sampling date of January 30, 2016.
- Place the wooden stake into the stockpile as a marker.

- Collect six subsamples from each stockpile section (half or quadrant, depending on size). Subsamples should be collected from several different parts of the stockpile section and at several depths between 0- and 12-inch depths.
- Collect the subsamples using a clean stainless steel spoon or trowel, obtain a small volume per subsample of about 2 or 3 ounces and place in a clean stainless steel bowl.
- Mix the combined sample thoroughly and place soil into an 8-ounce glass jar.
- Transfer the homogenized soil into the ESL-prepared sample jar.
- Label the sample jar based on the following notation: Stockpile number, Sample number, and date. For a given stockpile being sampled, the maximum number of composite samples that could be analyzed are four per the above table. Therefore, the sample identification notation only requires one digit, but two digits will be used for overall consistency with other sample types being entered into the database. For example the notation: SS01-S01-20160130 represents:
 - Stockpile number 1 (SS01)
 - Sample number 1 (S01)
 - Sample collected on January 30, 2016.
- Samples will be documented on the chain-of-custody (COC) forms and stored in a cooler with ice, kept at <6 degrees Celsius. Samples will be transported under proper COC procedures to the ESL. Analytical methods, hold times, and appropriate sample containers are listed in Table 2.
- In between samples and subsamples, clean equipment according to procedures in Section 4.
- Unused soil can be placed back on the stockpile for later disposal.

4.0 EQUIPMENT DECONTAMINATION

Soil sampling equipment will be cleaned after each sample is collected. Shovels, picks, sampling spoons, and stainless steel bowls will be wiped clean of visible dirt using a paper towel. The equipment will then be sprayed with an Alconox-tap water rinse followed by spray with a clean tap water rinse. The paper towels will be placed in a trash bag and disposed of in regular garbage. The spray rinse will be allowed to drip onto the ground adjacent to the sampling hole.

Hanby Test Kit

Standard Operating Procedure

Hanby Soil Test Kit

City of Tacoma
Environmental Services Laboratory

Tiffany Ryan
Environmental Lab Scientist II – Organics

Date

Greg Perez
Environmental Lab Scientist III – Organics Lead

Date

Lori Zboralski
Environmental Lab Scientist III – QA Manager, LIMS Administrator

Date

Stuart Magoon
Assistant Division Manager

Date

Disclaimer:

Please note that the City of Tacoma's Environmental Services Laboratory Standard Operating Procedures (SOPs) are adapted from published methods. They are intended for internal use only and are specific to the equipment, personnel, and samples analyzed at the Environmental Services Laboratory. This SOP is not intended for use by other laboratories nor does it supplant official published methods. Distribution of this SOP does not constitute an endorsement of a particular procedure or method.

This document is uncontrolled after printing. The official approved version is accessed through the laboratory's document management system.

Any reference to specific equipment, manufacturer, or supplies is for descriptive purposes only and does not constitute an endorsement of a particular product or service by the author or by the City of Tacoma.

Although the lab follows the SOP in most instances, there may be instances in which the lab uses an alternative methodology or procedure with quality assurance and management approval. Deviation will include documentation through the use of non-conforming work documents.

SOP Revision History

Revision Date	Rev Number	Summary of Changes	Sections	Reviser(s)
12/24/2015	1.0	New	all	Tiffany Ryan

Related Documents

Revision Date	Reference Documents List any related SOPs, Methods, or Manuals that support this procedure
12/15/2015	1008_Standard and Reagent Preparation and Documentation_v3

Related Records

Revision Date	Reference Records List any logs, labels, bench sheets, or report templates associated with this procedure

1. Scope and Application

- 1.1. This document describes the use of the Hanby TPH (Hydrocarbon) Field Test Kit™ to determine the concentration of petroleum hydrocarbon in soils. This procedure uses calibrated colorimetric charts (a series of photographs) for visually comparing sample results to known concentrations. Petroleum products that respond to this test include: gasoline, kerosene, jet fuel, diesel, fuel oils, lubricating oils, hydraulic fluids, mineral oils and insulating oils (e.g. transformer oil).
- 1.2. This Standard Operating Procedure (SOP) was developed from the Hanby Test Kit Instruction Book, copyright Hanby Environmental, LLC 2012 for use by the City of Tacoma for field measurement of total petroleum hydrocarbons (TPH) to determine waste disposal designation under Model Toxic Control Act (MTCA) administered by the Tacoma Pierce County Health Department. The Hanby Test Kit Instruction Book should be referenced for the primary workflow instructions.
- 1.3. The minimum reporting limits based on a 5 grams (g) sample volume are 40 milligrams/kilogram (mg/Kg) for gasoline, 1 mg/Kg Diesel and 50 mg/Kg for Heavy Oil. The reporting limits are 25 mg/kg dry weight (soil) for the petroleum products in the boiling point range of jet fuels through #2 diesel and 100 mg/kg dry weight (soil) for higher boiling point petroleum products, e.g. motor oils, hydraulic fluids, and heavy fuel oils.
- 1.4. This method is designed to be used in the field by non-scientists.

2. Summary of Procedure

- 2.1. A 5g soil sample is weighed into a beaker and mixed with solvent. An aliquot of the solvent is decanted into a test tube and a powder color development reagent is added. The tube is capped and shaken, and the developed color of the powder is compared to a set of photographs depicting a series of known petroleum types and concentrations.

3. Interferences

- 3.1. Specific interferences are not listed in the Hanby instructions. The instructions provided with the kit note that dark soils with organic matter may give higher readings than light colored clay samples.

4. Safety

- 4.1. Safety glasses and gloves are required. Use this kit in a well ventilated area and avoid fumes. Avoid skin contact with the color development powder. The solvent ampoule contains carbon tetrachloride which is a known carcinogen, and n-heptane which is flammable, a skin irritant and may cause lung damage if swallowed. The color development powder is aluminum chloride, which is corrosive and can cause severe skin burns and eye damage.

5. Equipment and Supplies

- 5.1. 1 Ampoule Extraction Reagent per sample
- 5.2. 1 Vial of Color Development Reagent per sample

- 5.3. Clean water for rinsing apparatus.
- 5.4. 1 Screw Top Test Tube w/ Scribed Measurement Mark per sample
- 5.5. Wooden Test Tube Rack
- 5.6. Photo ID Card Depicting Various Petroleum Concentrations
- 5.7. 50mL Beaker for weighing soil.
- 5.8. Electronic Balance capable of weighing to 0.1 grams
- 5.9. 125ml glass waste bottle
- 5.10. 1 10ml Graduated Cylinder
- 5.11. Spoon or spatula
- 5.12. Nitrile Safety Gloves
- 5.13. 1 Pair of Safety Glasses
- 5.14. 1 Hanby Procedure Manual
- 5.15. 1 Case to hold all the materials listed 5.1 – 5.14 with Foam Inserts.
- 5.16. Blank Chain of Custody forms

6. Reagents and Standards

- 6.1. Color development powder pillow or vial [solid] (aluminum chloride)
- 6.2. Solvent ampoule [liquid] (carbon tetrachloride and n-heptane)

7. Sample Collection, Preservation and Storage

- 7.1. This test is intended to be performed on-site. Collect a representative sample avoiding materials such as rocks, vegetation, glass, plastic, etc.

7.1.1. Refer to “A Note about Soil Sampling” on page 4 of the Hanby Procedure Manual (attached at the end of this document.)

- 7.2. If a dark or oily area of soil is noted, or if an area smells of fuel, that area should be tested as a priority and/or in addition to any other areas tested. Visually inspect several samples before analyzing them with the kit.
- 7.3. There are no preservation or storage requirements for this field test.

8. Quality Control and Method Performance

- 8.1. This method is designed as a screening tool.
- 8.2. The balance included in the Hanby kit should be checked for accuracy at a minimum of once per quarter. An ideal opportunity is when the kit is returned to the Environmental Services Laboratory for waste disposal/ refill. A standard weight will be used to ensure that the balance is accurate to within +/- 10% of the known standard weight. This data is to be stored in an Excel spreadsheet in the QA>Calibrations folder under the L: drive.

9. Calibration and Standardization

9.1. Refer to the color pictures to match best fit for each test.

10. Procedure

Follow the procedure outlined in the provided Hanby Procedure Manual on pages 6 and 7:

10.1. Rinse the spatula and beaker with clean water and dry them between samples to ensure no cross-contamination occurs.

10.2. Hanby step 1:

Place a clean empty beaker on the balance and turn on the balance. The balance automatically zeros. Wear protective gloves and safety glasses before proceeding.

NOTE:

10.2.1. If the balance is already turned on, place the clean, empty beaker on the weigh plate and press the "TARE" button to zero the reading.

10.2.2. Make sure that the units are in grams by checking for a "g" in the lower left corner of the screen. If "tl," "oz," or "ct" appears, or if "PCS" appears in the upper left corner, press the "UNITS" button until "g" is showing.

10.3. Hanby step 2:

Add 5 to 5.5 grams of soil sample to the beaker with the spatula. The reading has stabilized when a ⊙ symbol is displayed on the left side of the screen.

10.4. Hanby step 3:

Remove one of the soil extraction ampoules containing 10 mL of carbon tetrachloride and n-heptane mixture from the foam block. Place it on a hard, flat surface and snap off the top by grasping the plastic ring and applying even, firm pressure away from you.

The vial neck is pre-scored and does not require force to open. Avoid the sharp edges.

Pour the solvent from the ampule into the sample in the beaker. Use the spatula to break up any soil clumps and stir the solvent soil mixture for 1 minute. **Ensure you are in a well ventilated area and avoid the solvent fumes.

10.5. Hanby step 4:

Chop the soil with the spatula and stir it in the solvent for one minute. If the soil contains high clay content it may be necessary to smear the sample under the solvent. Clay soils tend not to break up easily and the goal of this step is to get good solvent contact with all areas of the soil. Clumping or lumping soil will need to be manually manipulated with the spatula to insure good mixing.

10.6. Hanby step 5:

Pour some of the liquid portion from the beaker into a clean test tube ONLY up to the marked line. Allow as little soil as possible to transfer over.

10.7. Hanby step 6:

From the color developer jar, remove and open a Color Development Vial (1g aluminum chloride) and pour its entire contents into the test tube. **Avoid skin contact with the**

powder, eyes and water.

10.7.1. Recap and place the empty vial in the paint can marked “waste.”

10.8. Hanby step 7:

Cap test tube firmly and vigorously shake for 15 seconds. Over the next two minutes, periodically shake the tube for 5 seconds at a time.

10.9. Hanby step 8:

Compare the color of the solid material in the bottom layer of the test tube to the calibration photograph cards in the photo book (5.6), and select the best match for **both the detected hydrocarbon and its concentration**. This match gives the results for this test.

10.10. Record result from this match (both the identified hydrocarbon and concentration) in the appropriate locations on the Chain of Custody form or alternative electronic media as soon as you have completed the test.

10.11. Hanby step 9:

After recording the results, pour the remaining liquid from the beaker, and the liquid from the test tube into the waste bottle located in the kit, leaving the solid material in the test tube.

10.12. The remaining soil in the beaker may be air dried and transferred back to the disposal pile from which it was collected.

10.13. Place the used test tubes with the solid material (aluminum chloride) in the metal paint can designated for waste.

10.14. The Hanby waste bottle may be stored in the black case, make sure the cap is securely screwed on. The waste paint can with used test tubes and color developer vials should be stored in a secure location, such as your locked work vehicle, ensuring it is securely stowed so as to prevent accidental tipping or breakage.

10.15. **Waste disposal:** Periodically or when full, return the waste bottle and paint can to the sample receiving area of the Environmental Services Laboratory at CUW for disposal. The contents of the paint can are to be emptied into the large glass waste bucket in room 230. The contents of the Hanby waste bottle may be poured into the designated lab waste bottle located in the flammables cabinet under the sample receiving hood. Both the paint can and Hanby waste bottle may be re-used to collect waste if they do not have chips, cracks or other defects that compromise their storage capabilities. Replacements will be provided by the laboratory.

10.16. Kit refills are stored in the laboratory chemical dry storage Room 229. Use the oldest vials first.

11. Data Analysis and Calculations

11.1. See Sec. 10.10.

12. Pollution Prevention and Waste Management

12.1. Waste solvent and waste aluminum chloride are hazardous materials and must be disposed of as hazardous waste. **The Environmental Services Laboratory has the**

5023_Hanby Soil Test Kit_v1.pdf

COC Example

An example of specifying analyte results for the Hanby TPH field test, enter ND for non-detect if no color change is noted

Environmental Data													
Reading No.	Sample Date	Sample Name	Location	Depth (Inches)	Latitude	Longitude	As	Pb	% H ₂ O	TPH mg/kg			Sample Comments
		Blank- SiO ₂	As, Pb < 5										
		Reference- NIST 2709a	As 6-15, Pb 11-24										
	1/1/15 0:00	Sample 1	Dig site 1	12"	xxx	yyy				50			Gasoline
	1/1/15 0:00	Sample 2	Dig site 1	24"	xxx	yyy				80			Diesel
	1/1/15 0:00	Sample 3	Dig site 1	36"	xxx	yyy				ND			

[Hanby Manual PDF](#)

APPENDIX D
City of Tacoma Traffic Management Plans

TRAFFIC CONTROL HANDBOOK

**MUST MAINTAIN
PEDESTRIAN AND
DISABILITY ACCESS AT
ALL TIMES**



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Sidewalk Closure with Parking Closure

SURVEY CREWS

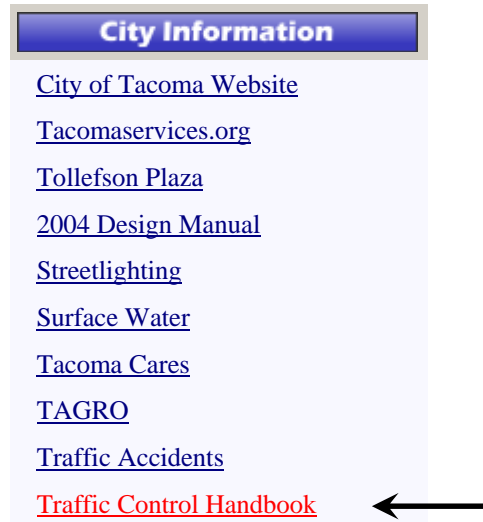
Survey Two Lane Arterial Intersection
Survey Two Lane Arterial Mid Block
Survey Multi-Lane Arterial

CREATE YOUR OWN PLAN

Blank Two Lane Road
Blank Two Lane Road with Center Turn Lane
Blank Two Lane Road with Two Intersections
Blank Two Lane Road with Two Intersections and Parking
Blank Two Lane Road with Four Intersections and Parking
Blank Four Lane Road with Two Intersections
Blank Four Lane Road with Two Intersections and Parking
Blank Five Lane Road

TRAFFIC CONTROL PLAN INSTRUCTIONS

- 1) To create a traffic control plan, go to www.govME.com
- 2) At the bottom of the page, under “City Information” choose “[Traffic Control Handbook](#)”



The City of Tacoma Traffic Control Handbook will open up in a new screen.

- 3) Read “**INTRODUCTION & SPECIAL REQUIREMENTS**” Chapter. Pay particular attention to the sections regarding [*Pedestrian and Disability access.*](#)
- 4) Choose a plan closest to the type of traffic control you need.
 - You may need to alter an existing plan or use multiple plans
- 5) Print out the traffic control plan that you need.
- 6) On the map, identify street names and addresses of work.
- 7) Draw site specific details (work area, location of signs, cones, etc.).
- 8) Add Contractor name and contact information.
- 9) Specify type of work at the top of the page
- 10) List dates of work and desired work hours.
- 11) Contact a Permit Specialist when you are done filling in your Traffic Control Plan.
- 12) Write the permit number in the top right corner of the sheet (when obtained from the Permit Specialist).
- 13) The Traffic Control Plan is not valid until permit is acquired and paid for.
- 14) You must keep a copy of the Traffic Control Plan on your job site for Inspectors and Road Use Compliance Officers to review. Prime contractors will be responsible for any subcontractor's traffic control unless sub goes through the above process.



City of Tacoma Public Works Department

INTRODUCTION

This manual is intended for use by any person, firm or corporation, public or private, when involved in construction, maintenance or any activity that alters the normal flow of traffic, vehicular or pedestrian, on any City right-of-way.

This manual shall be used in conjunction with Part VI of The Manual on Uniform Traffic Control Devices (MUTCD) for the installation of temporary traffic control and the Access Board's Guidelines for Accessible Public Rights -of-Way (2002), (www.access-board.gov/),

Authority to establish local rules regarding channelization and traffic control is permitted by Washington Administrative Code (WAC) 308.330.265.

Unless specifically addressed in this manual, when the term "should" is used in the MUTCD to describe a condition or method for traffic control, it means that if that suggestion is not used an equally effective method will be used. It does not eliminate the responsibility to address the situation.

This manual does not prohibit the use of additional traffic control or warning devices as long as the minimum conditions are met.

For additional information, please call the Engineering Division at (253) 591-5500.

PERMITS

A permit must first be obtained from the Public Works Department by any person, firm or corporation working in City right-of-way that alters the normal flow of traffic or makes any public place dangerous.

Provisions for obtaining a permit are outlined in Tacoma Municipal Code Chapter 10.22.

All applications for permits must have a comprehensive traffic control plan attached for review by the Traffic Engineer. Permits will not be issued unless the Traffic Engineer has approved the traffic control plan.

MUNICIPAL AGENCIES

Municipal agencies and Utilities are not required to obtain a permit for routine maintenance and repairs, but must notify the Traffic Engineer a minimum of 72 hours in advance if the following conditions apply:

1. Closing any street (see attached street closure requirements).
2. Altering or detouring traffic during commute hours on arterial streets (7 a.m. – 9 a.m. and 4 p.m. – 6 p.m.).
3. The activity or obstruction will be in place for more than 8 hours.
4. The activity or obstruction is during the hours of darkness.
5. The activity reduces traffic on arterial streets to less than one lane in each direction.

GENERAL RULES

The following list of rules must be followed while involved in construction, maintenance or other activity in City right of way unless specifically addressed by the Traffic Engineer.

1. All traffic control devices must meet the requirements established by the Manual on Uniform Traffic Control Devices.
2. No activity will be placed in such a way as to detour, slow or alter traffic flow during peak commute hours. These times are generally from 7 a.m.– 9 a.m. and 3:30 p.m. – 6 p.m. The Traffic Engineer may allow an exception with prior approval.
3. An approved traffic control plan must be on-site and accessible for inspection at all times by law enforcement or inspectors.
4. Traffic control plans and activities must include the following components:
 - a. Advanced Warning Area: Signs and other devices inform drivers of what to expect.
 - b. Transition Area: Channelization devices move traffic from the normal flow to the desired path.
 - c. Activity Area: Area where the work takes place.
 - d. Buffer Space: Area used to separate traffic from the work activity area and provides recovery space for an errant vehicle.
 - e. Termination Area: Area used to return traffic to the normal path.
5. **Pedestrian and disability access** must be maintained throughout the period of time construction is underway. This does not just apply to the final product, but accessibility must be maintained during the actual construction. Safe, clearly marked routes must be maintained through or around the construction activity at all times. The use of temporary walkways with width, slope, and cross-slope compliant to the maximum extent feasible shall be incorporated on the job site. Surfaces must be firm, stable, and slip resistant. Channeling and barricading must be used to separate pedestrians from traffic. Adequate barricading must be addressed to prevent visually impaired pedestrians from entering work zones. Alternate pedestrian circulation routes with appropriate signage that can be accessed by people who use mobility aids (wheelchairs, walkers, scooters, etc.) The alternate circulation path shall have a minimum width of 5 feet and parallel the disrupted pedestrian access route when practicable. Barricades and channelizing devices shall be continuous, stable, non-flexible, and shall consist of a wall, fence, or enclosure specified in section 6F of the MUTCD. A solid toe rail should be attached such that the bottom edge is 6 inches maximum above the walkway surface. The top rail shall be parallel to the toe rail and shall be located 36 inches minimum and 42 inches maximum above the walkway surface. If drums, cones, or tubular markers are used to channelize pedestrians, they shall be located such that there are no gaps between the bases of the devices in order to create a continuous bottom, and the height of each individual device shall be no less than 36 inches.
6. Persons in charge of maintaining or establishing traffic control and channelization must have a certified flagger control card in their possession and must be on the site at all times or be represented by another knowledgeable, certified person.
7. A flagger cannot be used to direct traffic through a signalized intersection against the signal indications. When flaggers are used near signalized intersections, care will be used to clear the intersection of traffic before the signal change.
8. In some situations, Signal modifications may be used to support the traffic control plan. The traffic Signal Shop shall make all modifications, and all modifications must be approved by the Traffic Engineer.
9. A uniformed police officer is required to direct traffic through a signalized intersection against the signal indications.
10. Police officers may also be required during activities for traffic calming if speeds are high, pedestrian or vehicular traffic volume is extremely high, or during emergencies.

11. 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. An **approved traffic control plan and permit shall** be posted on the job site for review by City officials. Construction Inspectors shall ensure the approved traffic control plan is on site at all times. Any approved Traffic control plans the Contractor doesn't follow are in violation of the Standard Specifications which are included in the contract. It is the inspector's job to have them comply or Stop work. Jobs having permits only and not following the approved Traffic Control plan is a violation of Tacoma Municipal Code 10.22.080. The work can be stopped or a violation infraction can be imposed in an amount not exceeding \$500.00.
12. When parking lanes are closed due to construction, "no parking" portables will be installed at least 48 hours in advance of the closure in unrestricted areas and 24 hours in advance in time restricted areas. The message on the portables shall establish the date and hours for no parking.
13. During emergencies where life, property or public safety is in danger, conditions listed may be changed. Traffic control will be addressed along with the initial response. (See attached page for emergency contact numbers.)
14. The Traffic Engineer may allow reduced speed limits in construction area zones. Request for speed reduction must be included in the traffic control plan.
15. All signs and cones shall be removed from the right-of-way when traffic control is not in effect.
16. The contractor may be required to discontinue work if possible conflict exists with special events such as parades, sporting events, miscellaneous rallies, and large public meetings. Information concerning such events can usually be obtained from the City Clerks Office, tel. (253) 591-5171.
17. Maintenance of 2-way traffic on arterial streets at all times except on one-way streets. Additional width for facilitating traffic flow may be obtained by prohibiting on-street parking adjacent to the work zone.
18. No work shall be scheduled on streets or sidewalks within the City of Tacoma Business Districts from Thanksgiving Day through New Year's Day.
19. All traffic control devices used at night, particularly signs, barricades and channelizing devices, must have Type C steady burn lights. Requests to reduce the number of lights used on channelizing devices must be specifically detailed on the approved traffic control plan.

Failure to comply with the provisions of this manual is a traffic infraction and, notwithstanding any fines or penalties levied against the person, firm or corporation involved, if a safety hazard exists, the work may be ordered stopped and the obstruction cleared by the person, firm or corporation responsible or by the City at that responsible party's expense.

<http://www.cityoftacoma.org/>

<http://wspwit01.ci.tacoma.wa.us/govME/Admin/Inter/StartPage/default.aspx>

http://wspwit01.ci.tacoma.wa.us/download/PDF/Traffic_Control_Handbook.pdf

Special Traffic Requirements

The contractor shall notify the following departments three (3) working days prior to any street closure.

Pierce Transit requires five (5) working days prior to any route detours.

Department	Phone	Fax	Email
Traffic Engineering	591-5500	591-5533	
Tacoma Fire Department	591-5733	591-5034	kmueller@cityoftacoma.org
Tacoma Police –Ops	591-5932	594-7842	
LESA	798-4721 Opt #3	798-2708	
Sound Transit Link	206-370-5674		
Pierce Transit	581-8109	589-6364 or 589-6367	
Pierce Transit Events Coordinator	581-8001	984-8161	
Public Works/Street Ops	591-5495	591-5302	
School Trans Office	571-1853	571-1932	
Durham School Services		475-0422	
First Students		272-7799	
UWT Facilities Services		692-5705	
Off-Duty Police Officer	591-5932		TacomaPoliceEvents@cityoftacoma.org
Tacoma Refuse	591-5544	591-5547	

Include the following information when notifying the above departments.

Name of street to be closed & the extent of the closure (between which two roads).

Stipulate whether or not the area is to be open to local traffic & emergency vehicles.

State the date(s) & hour(s) the closure will be in effect.

Give the reason for the closure.

Provide detour information.

State who/which firm is performing the work.

Provide the name and telephone number of a contact person.

Recommended Publications

As a contractor you will have many opportunities for setting up traffic control. To comply with national standards, we recommend having the **MUTCD** (Manual on Uniform Traffic Control Devices) for future reference.

To order hard copies or CD versions of the MUTCD please go to one of the links below:

American Association of State Highway Organizations at: <https://bookstore.transportation.org/>

Institute of Traffic Engineers at: <http://www.ite.org/bookstore/index.asp>

American Traffic Safety Services Association at: <http://www.atssa.com/>

Things to Think About

Before the traffic control plan is drawn visit the site and look for special circumstances that may be unique to the area. For example work being done on the sidewalk may be a hazard if someone walks out a door into your wet cement or a tool may fall on someone's head if someone is in a lift washing windows. Call Pierce Transit if you need to do work at a bus stop. Transit requires five (5) days notice for route detours. Transit will inform citizens and move or temporarily close the stop. Keep in mind that pedestrians need 5' of unobstructed walking area. If roadwork needs to be done on an arterial street, traffic control devices shall be removed during peak hour traffic (7am to 9am and 4pm to 6pm). For further information see our TRAFFIC CONTROL HANDBOOK.

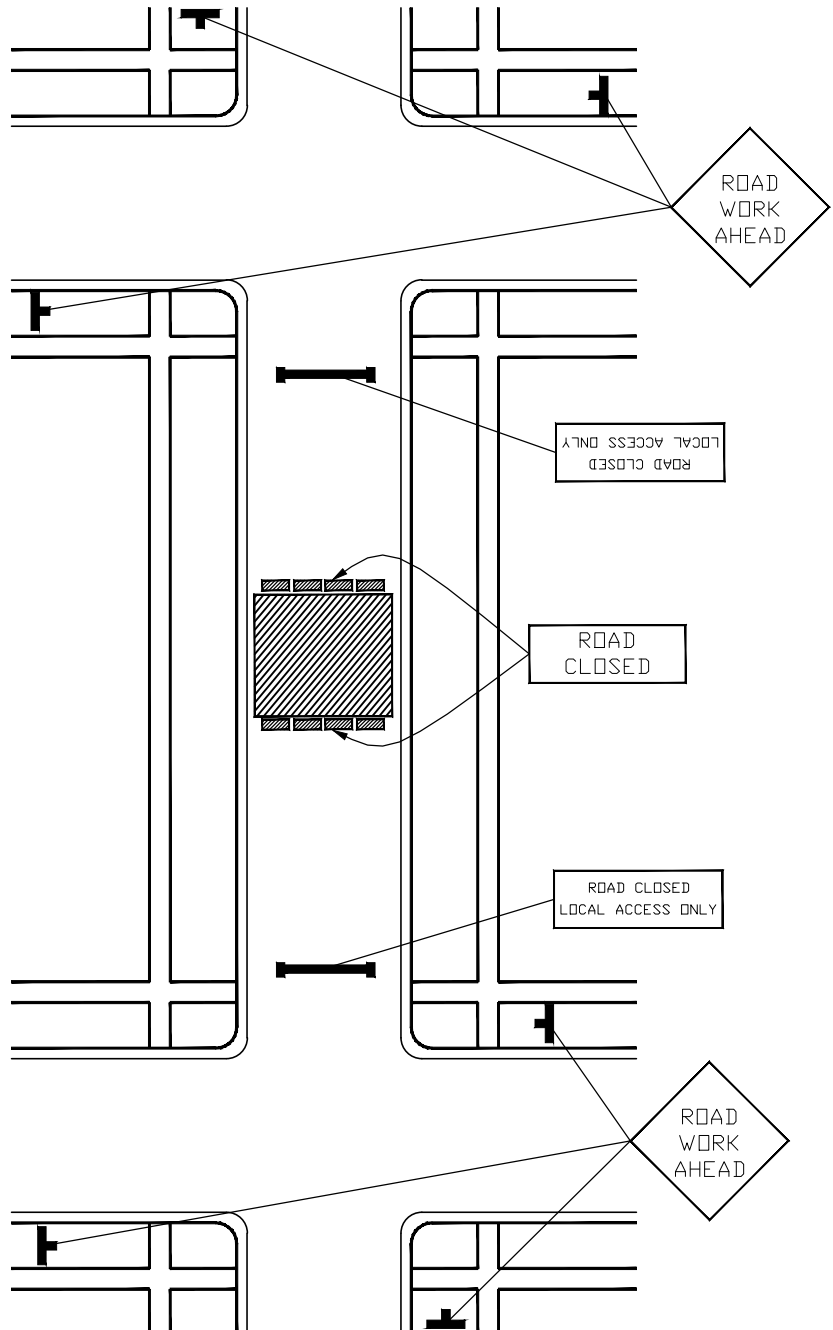
<http://www.cityoftacoma.org/>

<http://wspwit01.ci.tacoma.wa.us/govME/Admin/Inter/StartPage/default.aspx>

http://wspwit01.ci.tacoma.wa.us/download/PDF/Traffic_Control_Handbook.pdf

SAMPLE SETUP

Note: At night, signage and barricades must be Type C steady burn lights. A contractor may close a nonarterial street to through traffic, provided that local access is maintained at all times with a minimum of a 20' wide access lane. Road Work Ahead signs may be eliminated on non-arterial streets.



NON-ARTERIAL ROAD CLOSURES

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

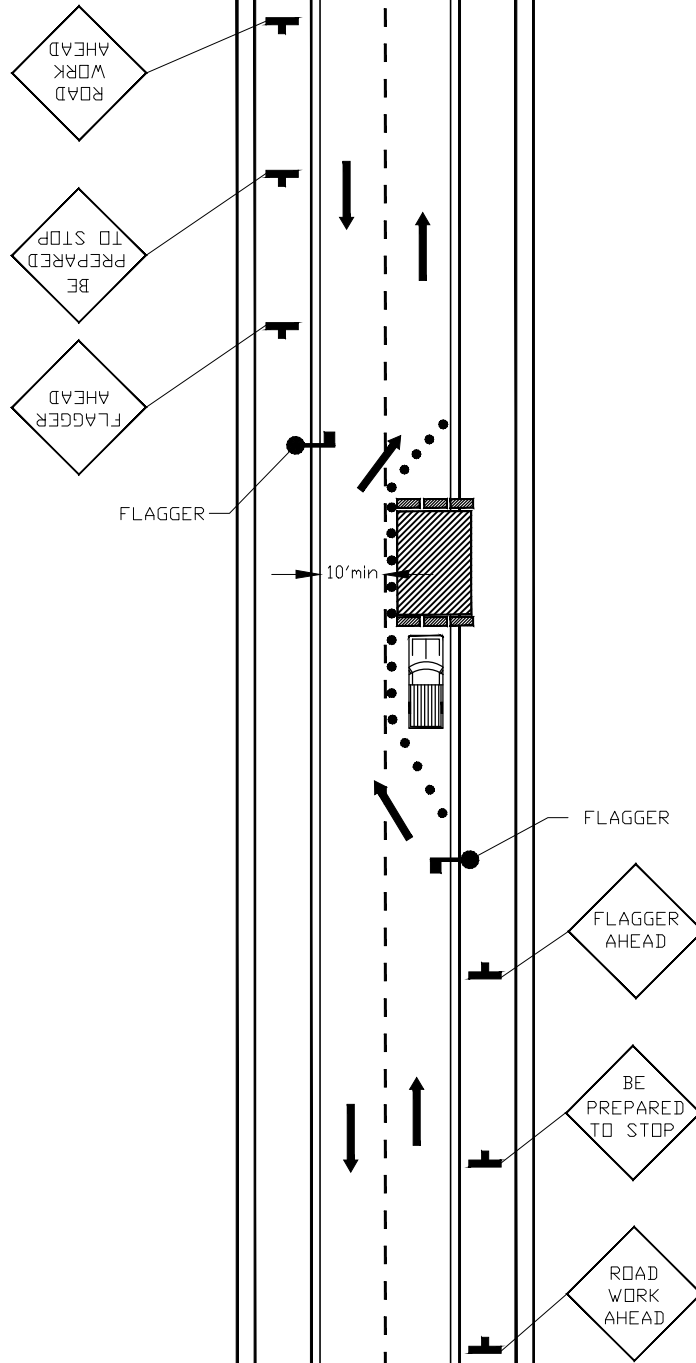
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



SINGLE LANE NON-ARTERIAL WITH FLAGGER

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

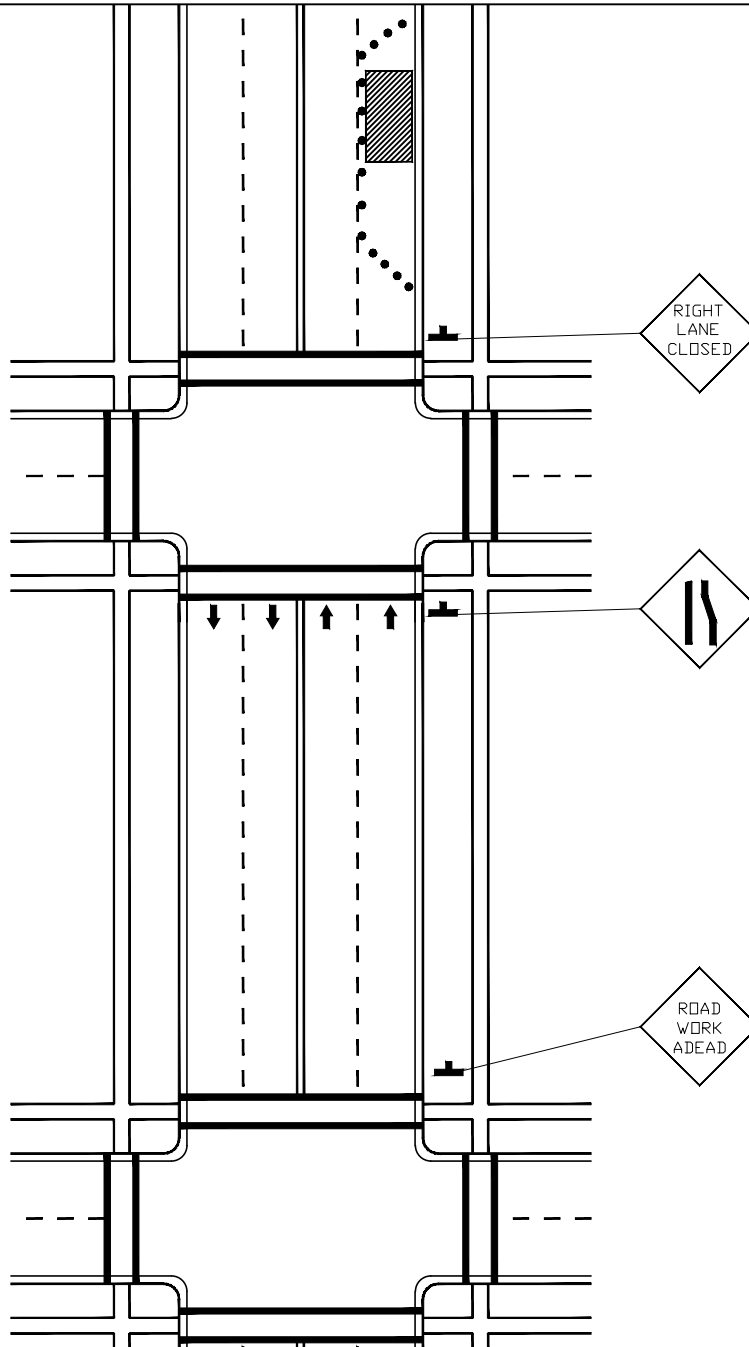
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



CBD
RIGHT LANE
CLOSURE

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

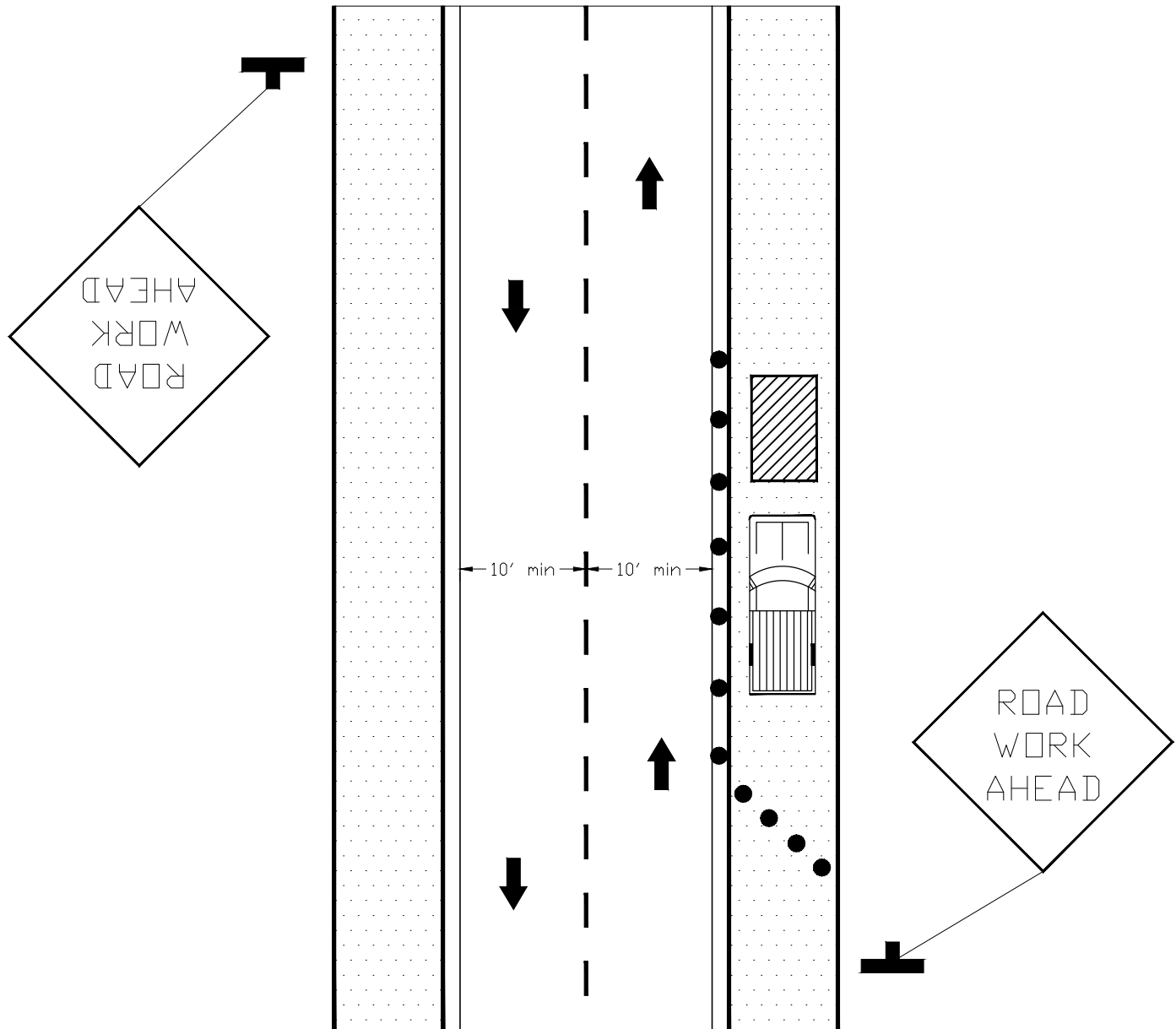
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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SAMPLE SETUP



SHOULDER WORK WITH MINOR ENCROACHMENT

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

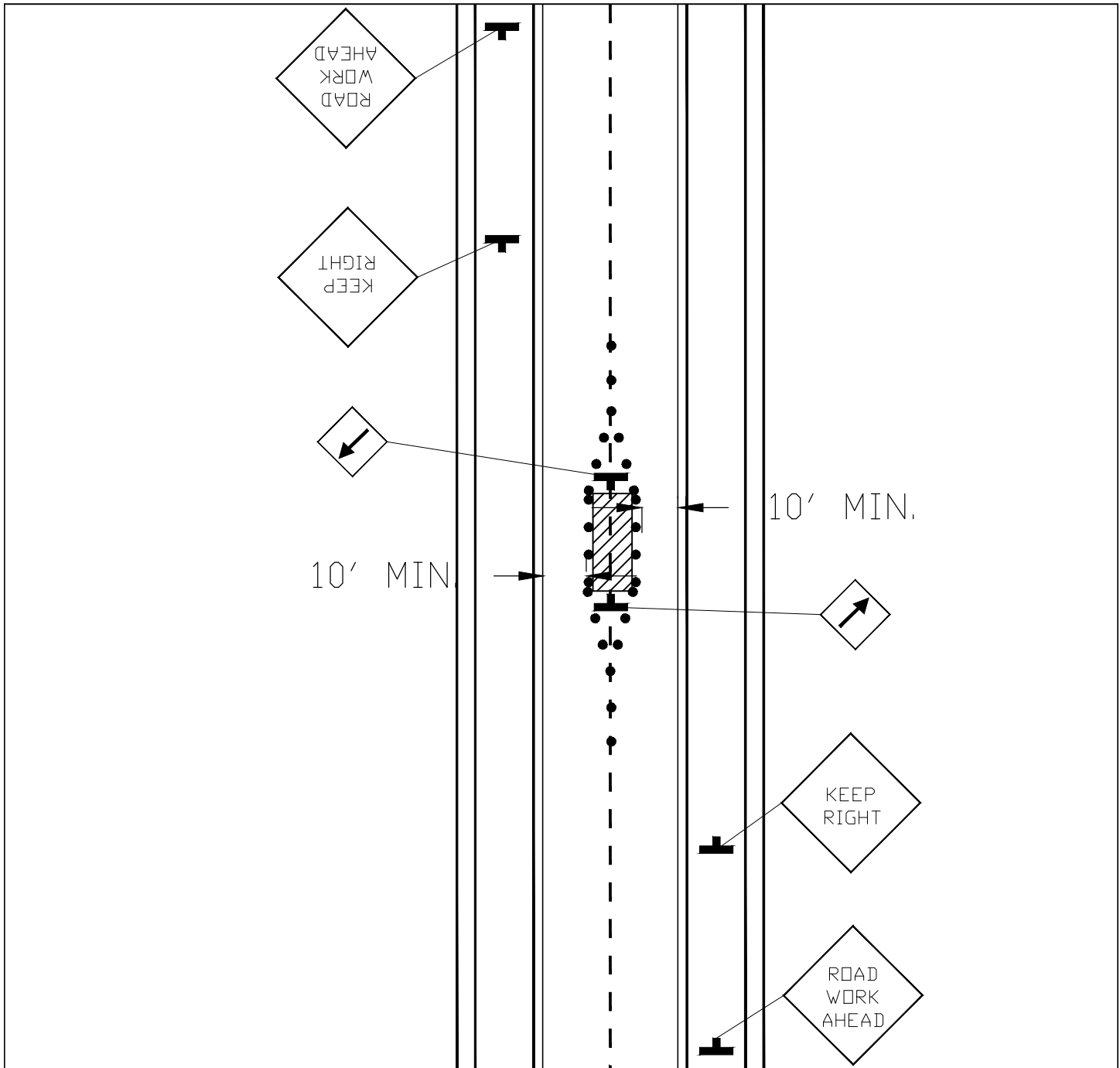
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8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

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SAMPLE SETUP



TWO LANE CENTER CLOSURE

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

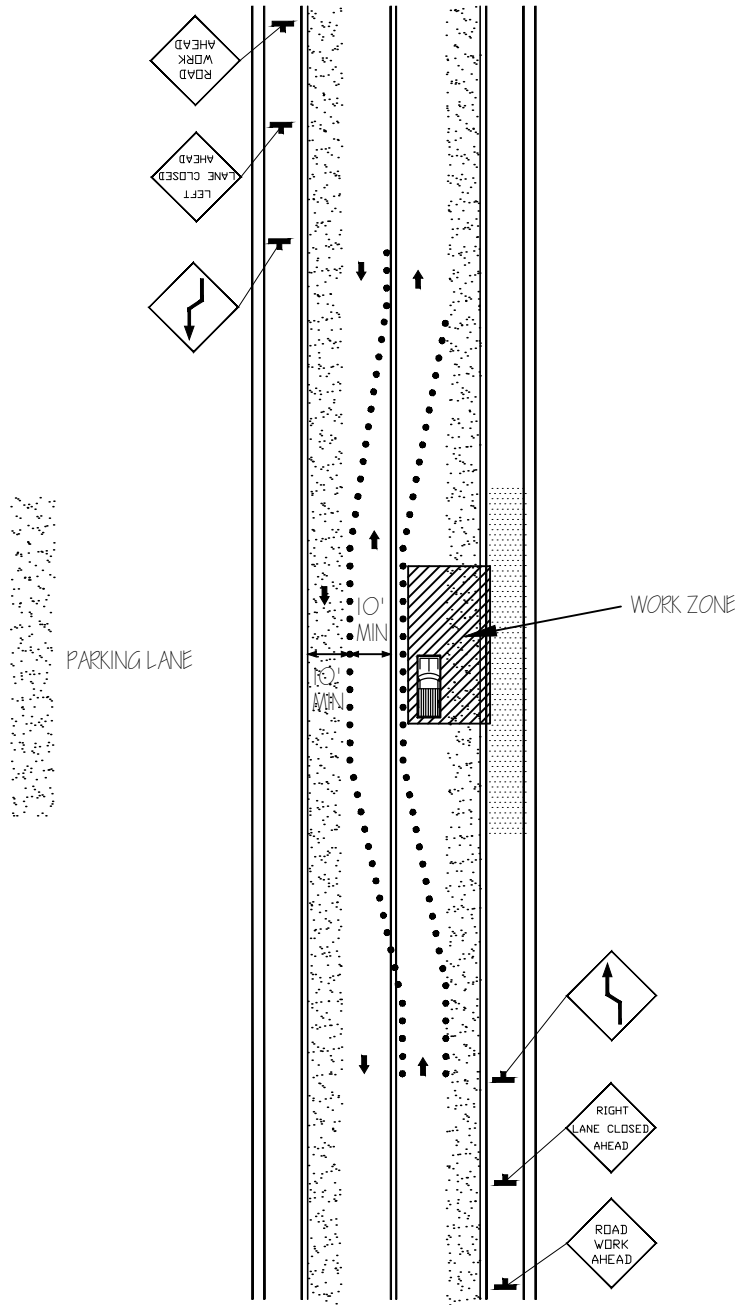
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



TWO WAY LANE SHIFT WITH PARKING

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

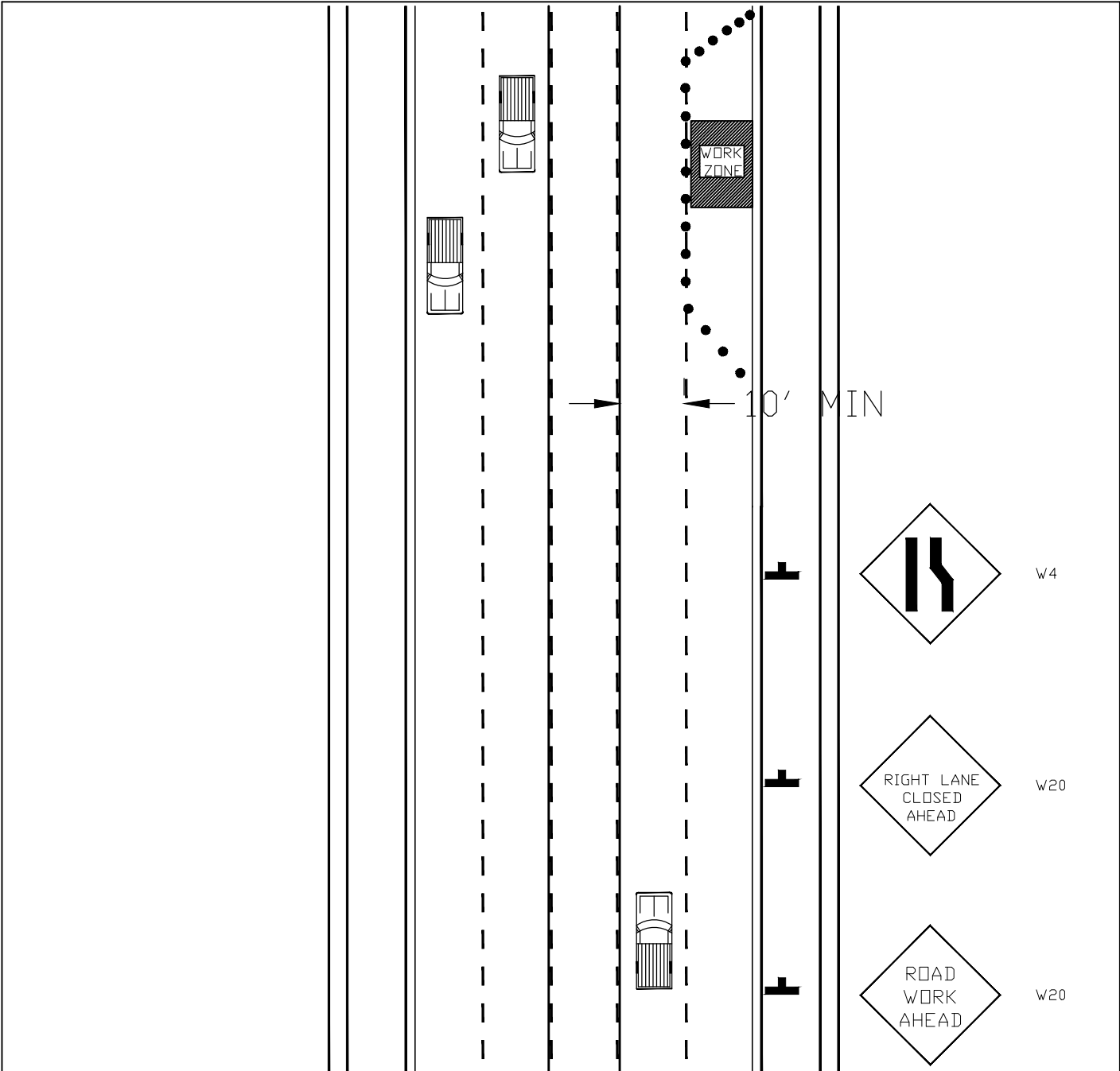
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



RIGHT LANE
CLOSURE

MERGING TAPER LENGTHS
FOR CONE PATTERN
(All minimums)

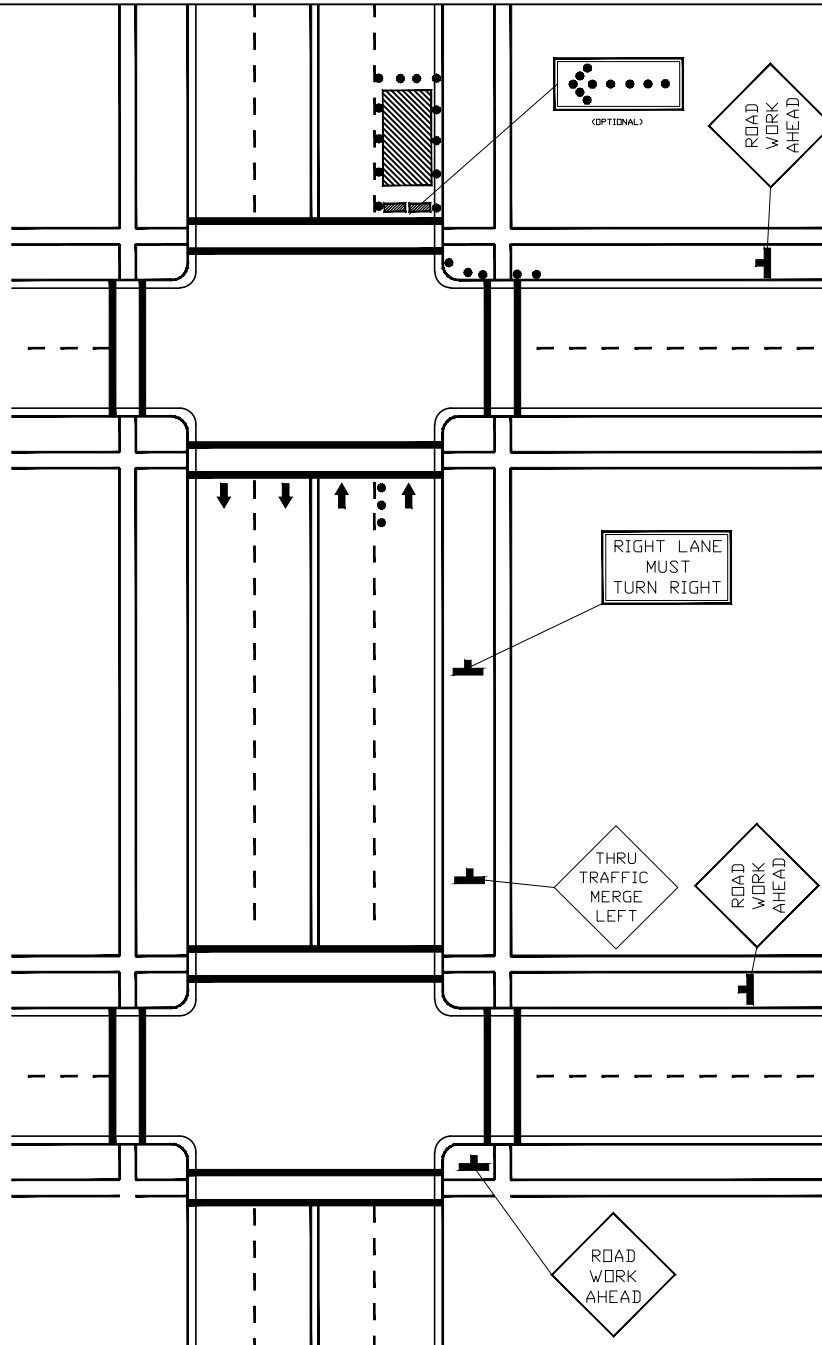
☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS
EVENING AND WEEKENDS ONLY
START TRAFFIC CONTROL SET UP DATE & TIME: _____
MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.
NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.
NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



RIGHT LANE CLOSURE AT INTERSECTION

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

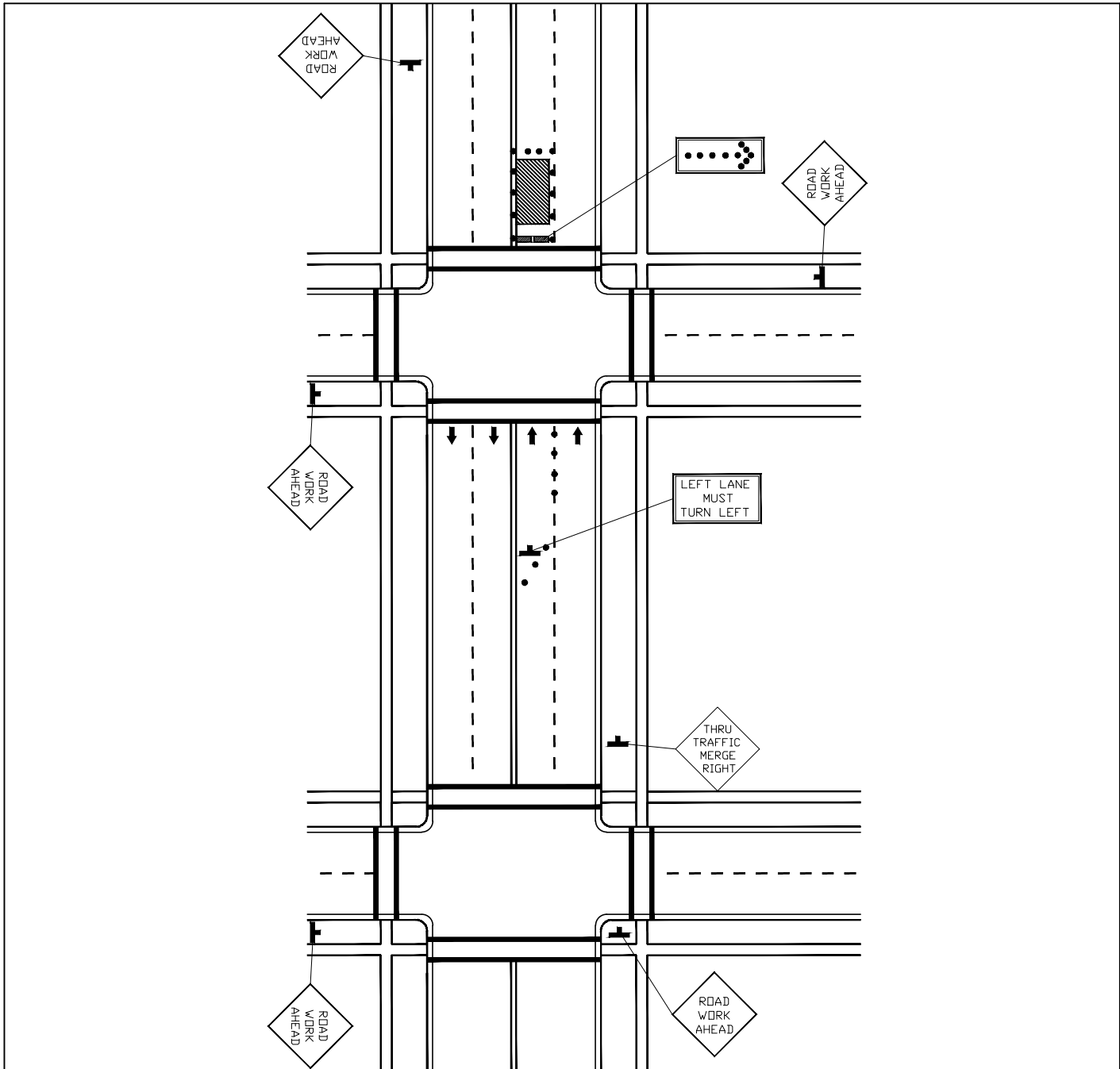
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



LEFT LANE CLOSURE AT INTERSECTION

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

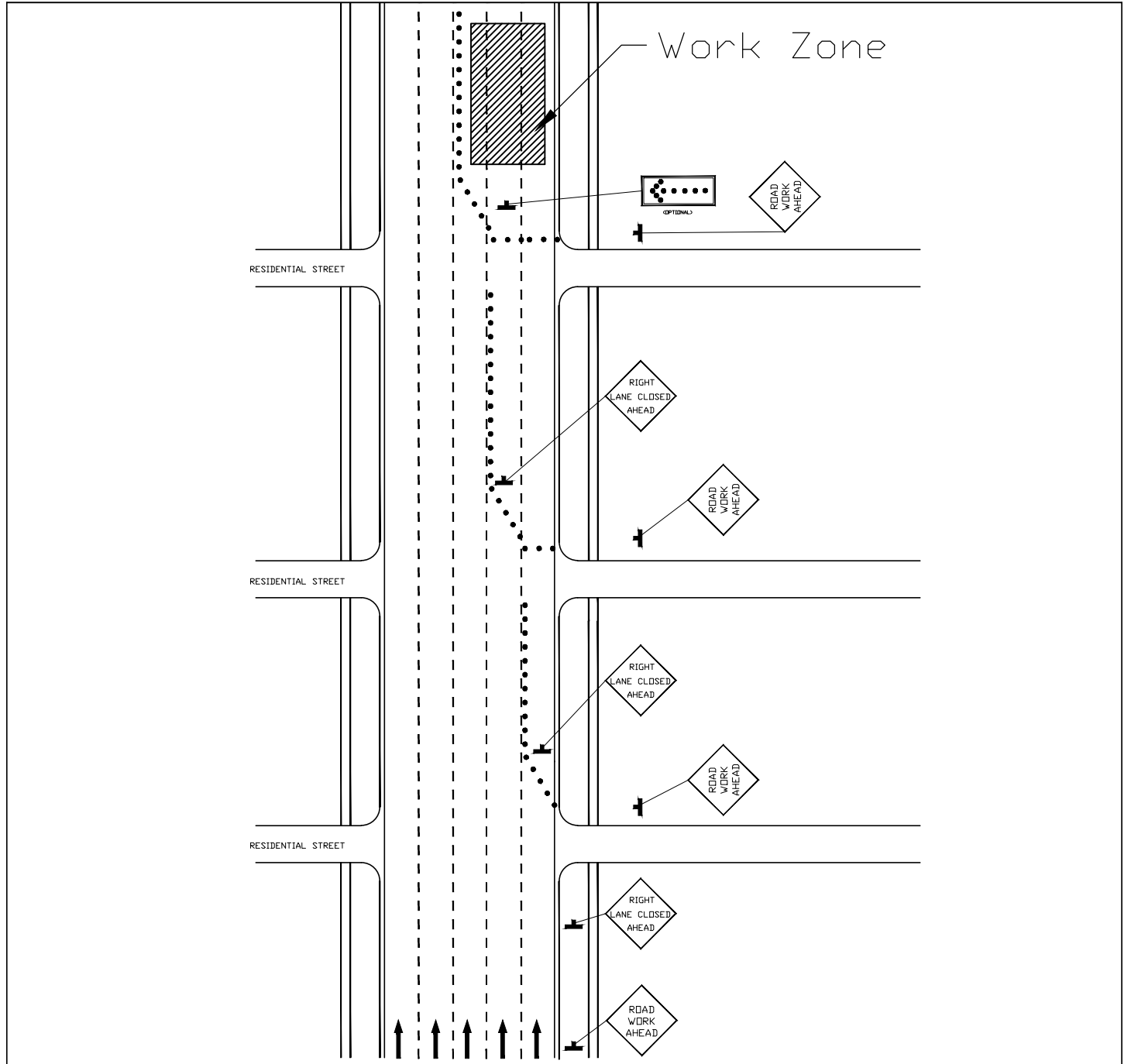
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



ONE WAY MULTI-LANE CLOSURE

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

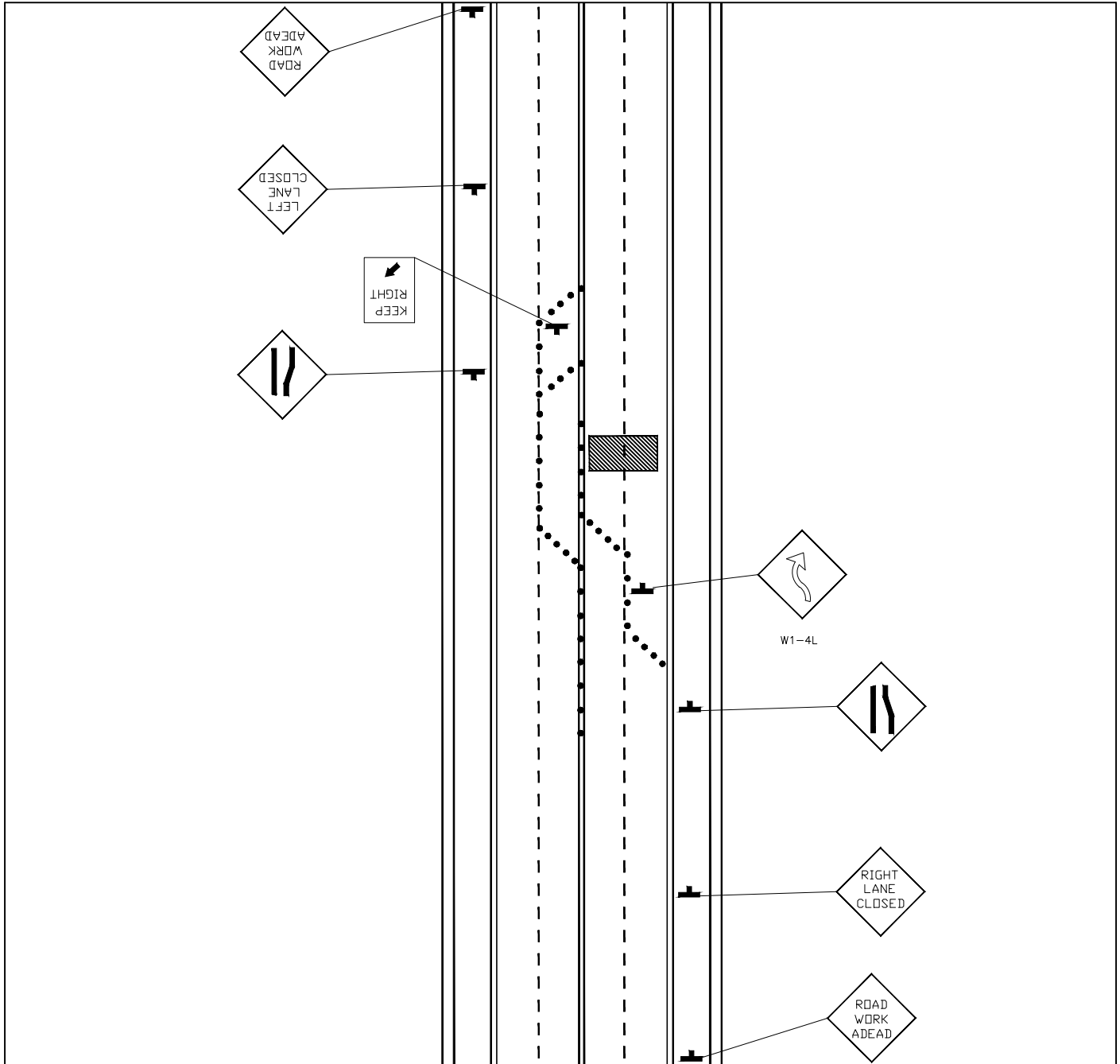
MPH	10	15	20	25	30	35	40	
LANE WIDTH	8'	14	30	54	84	120	164	214
	10'	17	38	67	105	150	204	267
	12'	20	45	80	125	180	245	320
	14'	24	53	94	146	210	286	374
	16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)								
Offset cones 1 foot maximum.								

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



FOUR LANE ROAD
TWO LANE CLOSURE
ARTERIAL STREET

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

NUMBER OF CHANNELIZATION DEVICES (CONES)
Offset cones 1 foot maximum.

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

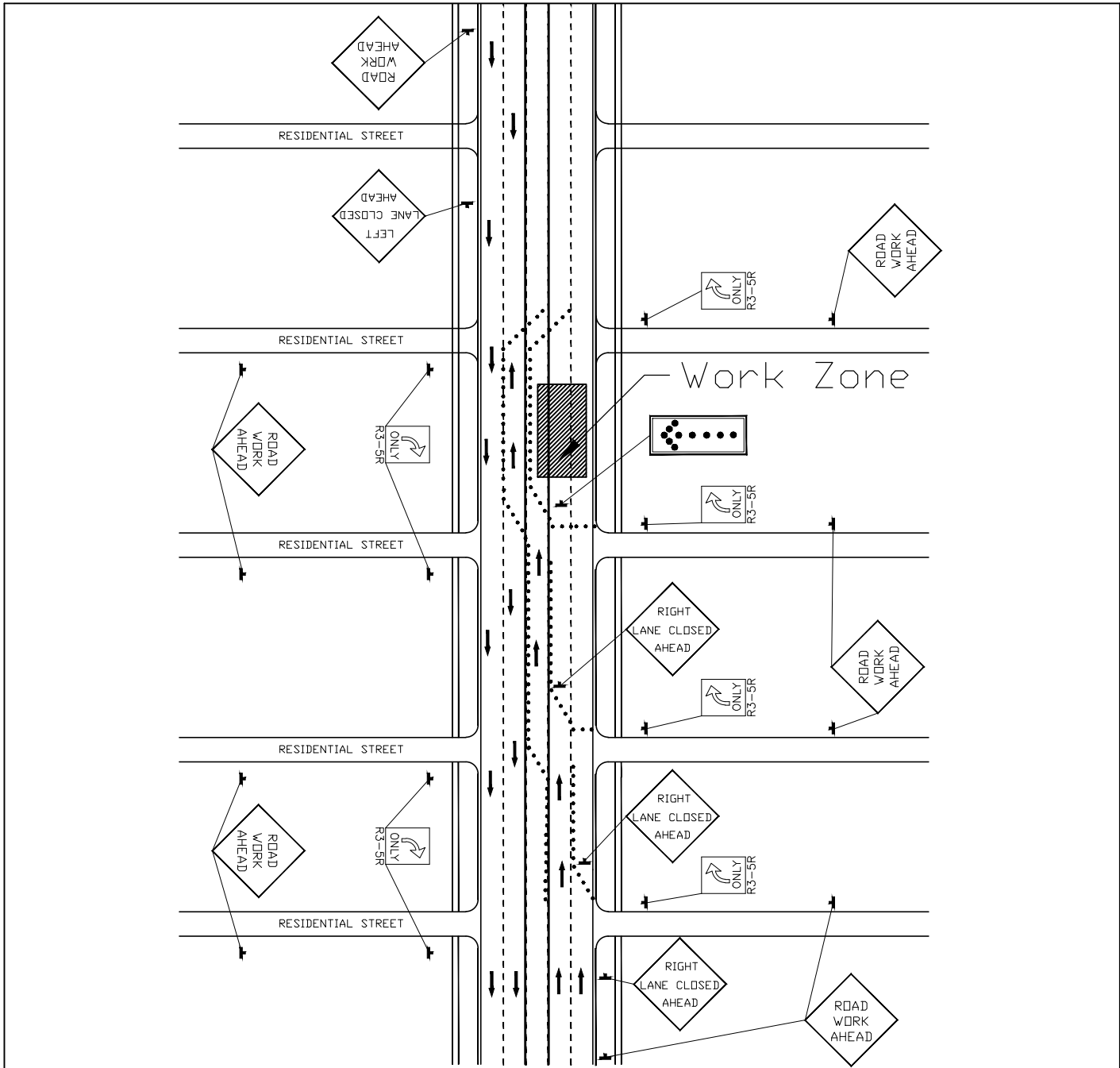
MUST BE OUT OF THE ROAD BY DATE & TIME: _____

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



FIVE LANE ROAD MULTI-LANE CLOSURE

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

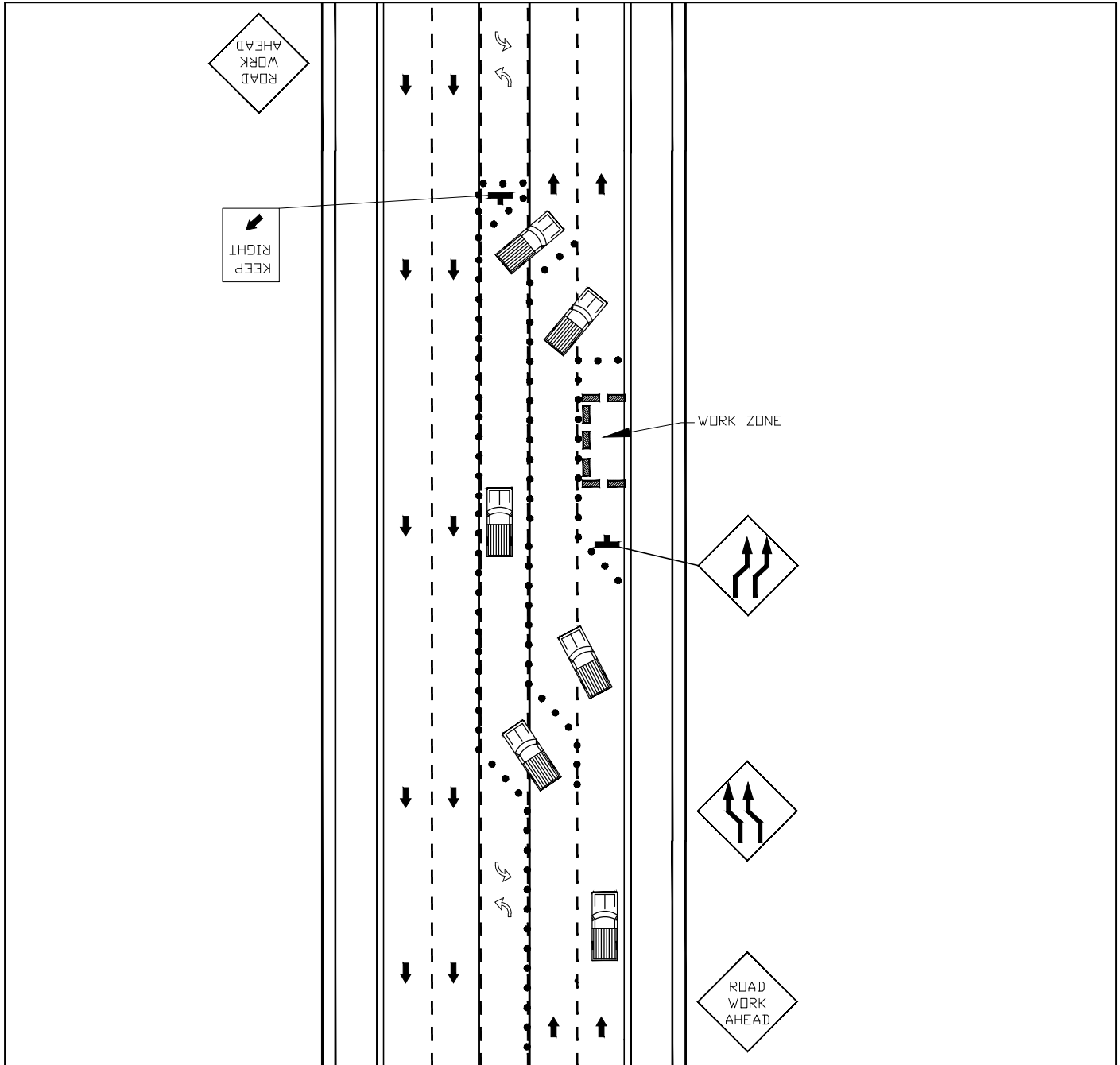
Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



TRAFFIC CONTROL FOR 5 LANE SHIFTING

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

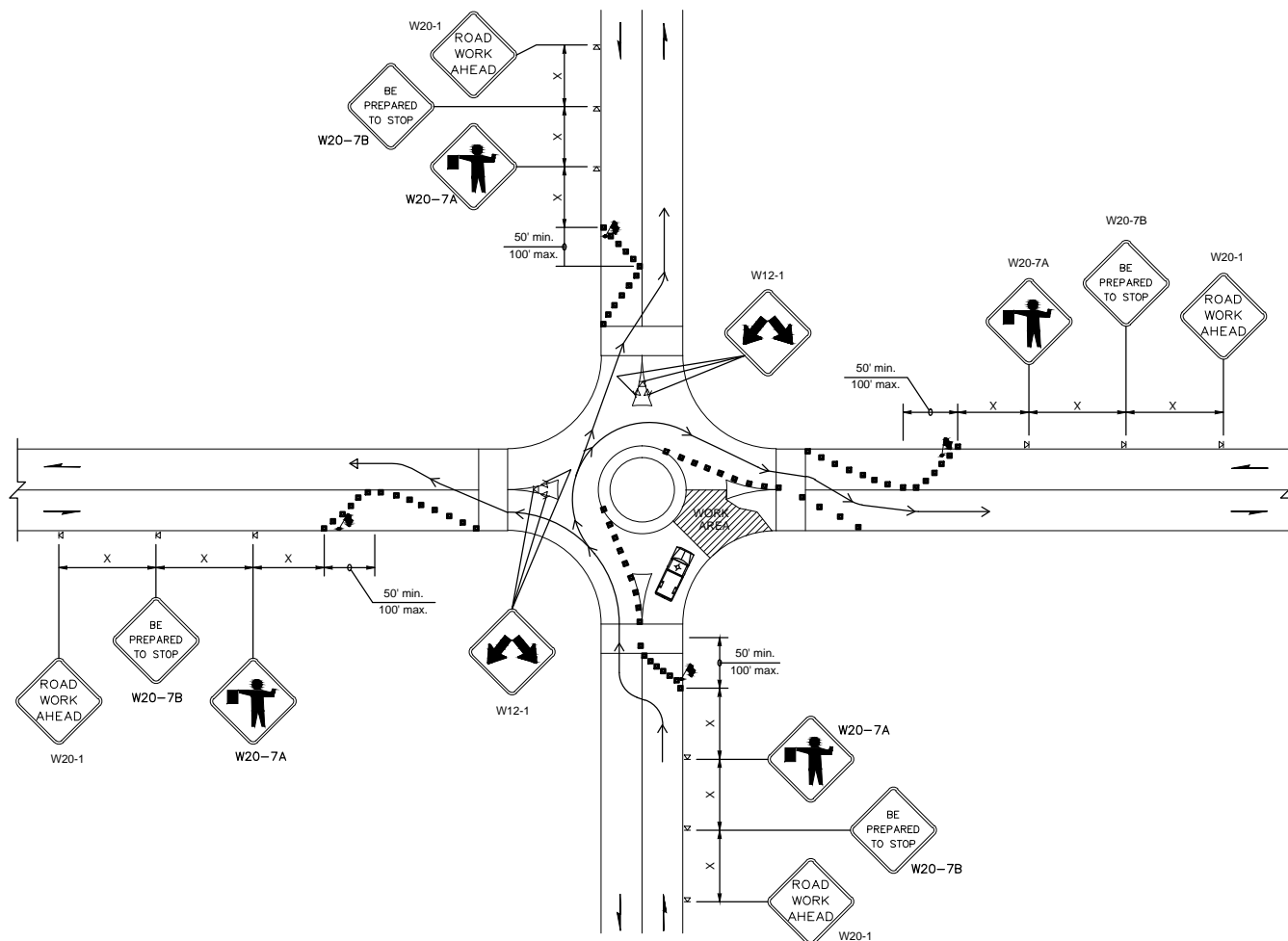
NUMBER OF CHANNELIZATION DEVICES (CONES)

Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.



TYPICAL ROUNDABOUT TRAFFIC CONTROL WITH FLAGGERS

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

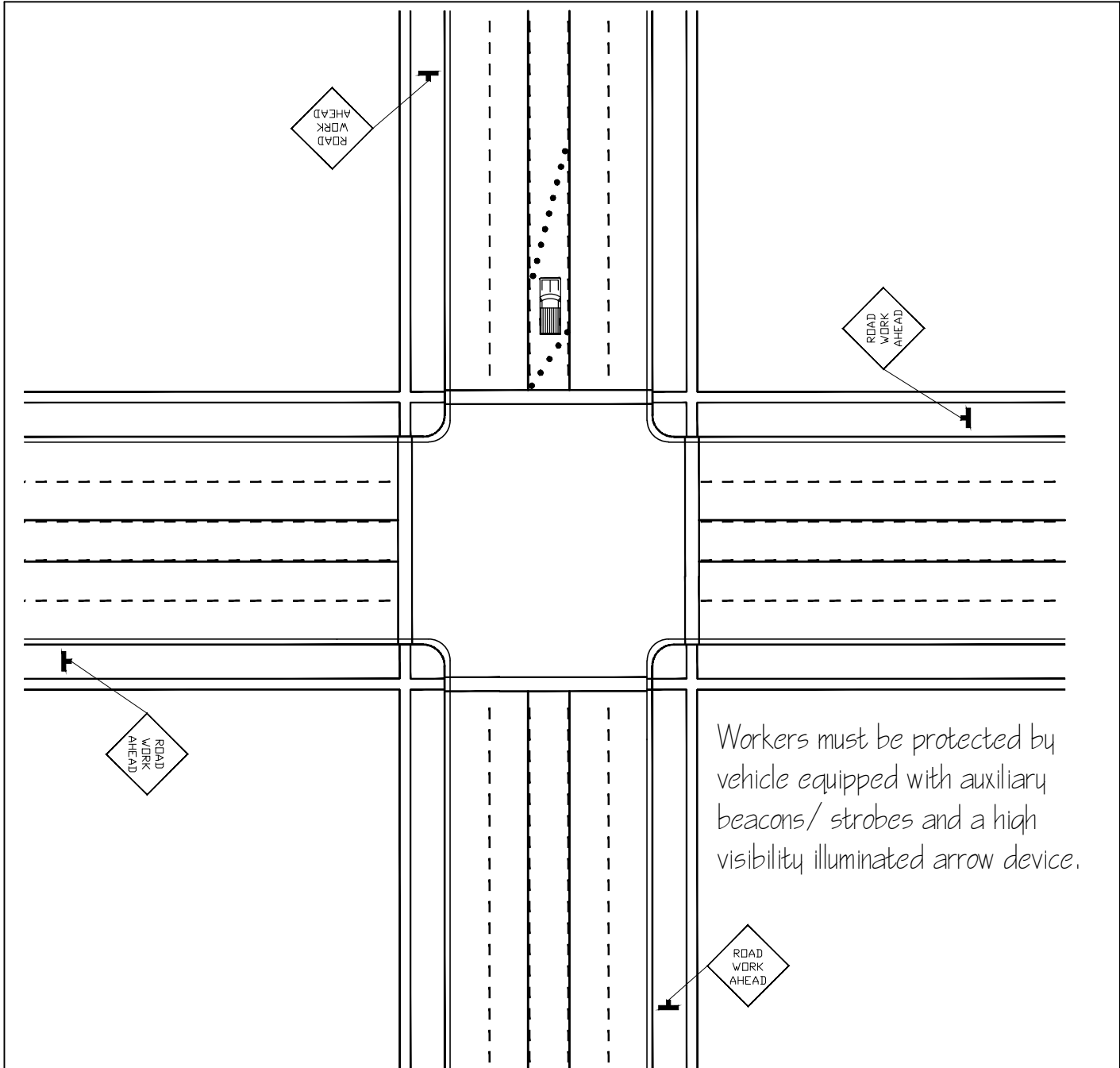
MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.
 NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.
 NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



CENTER LANE CLOSURE AT INTERSECTION UNDER 60 MINUTES

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

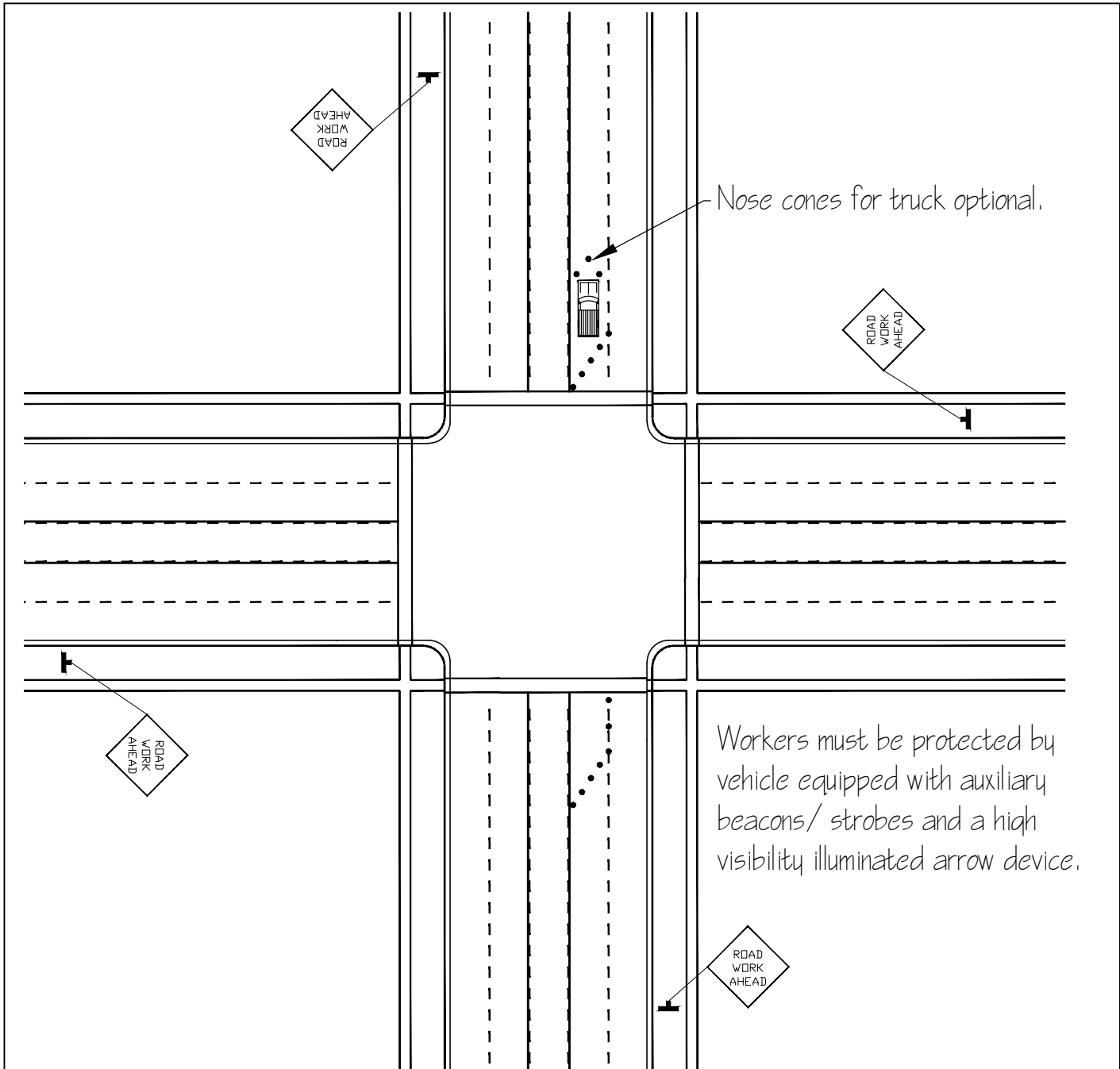
Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



INSIDE LANE CLOSURE AT INTERSECTION UNDER 60 MINUTES

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

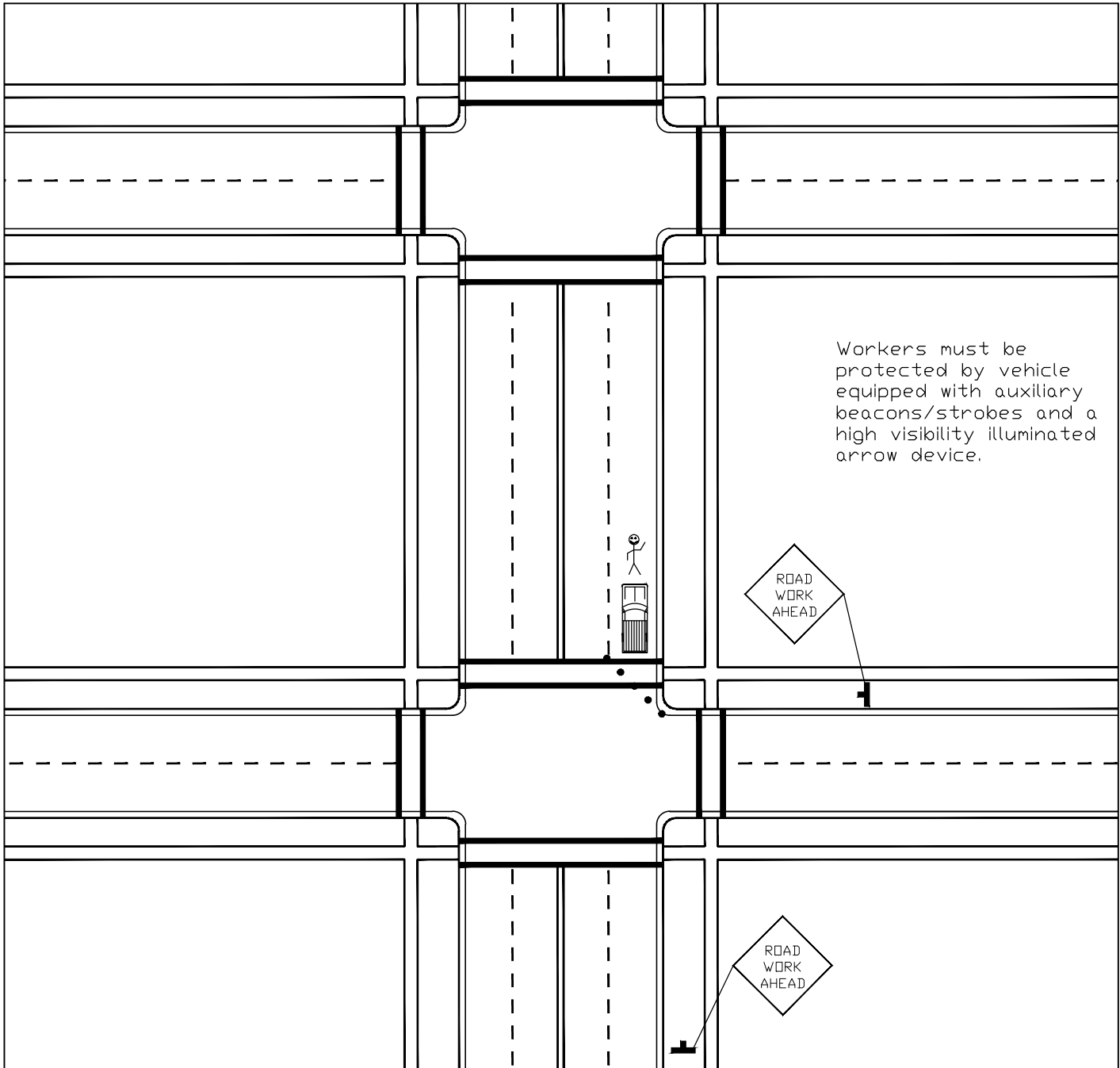
Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



LANE CLOSURE AT INTERSECTION UNDER 60 MINUTES

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

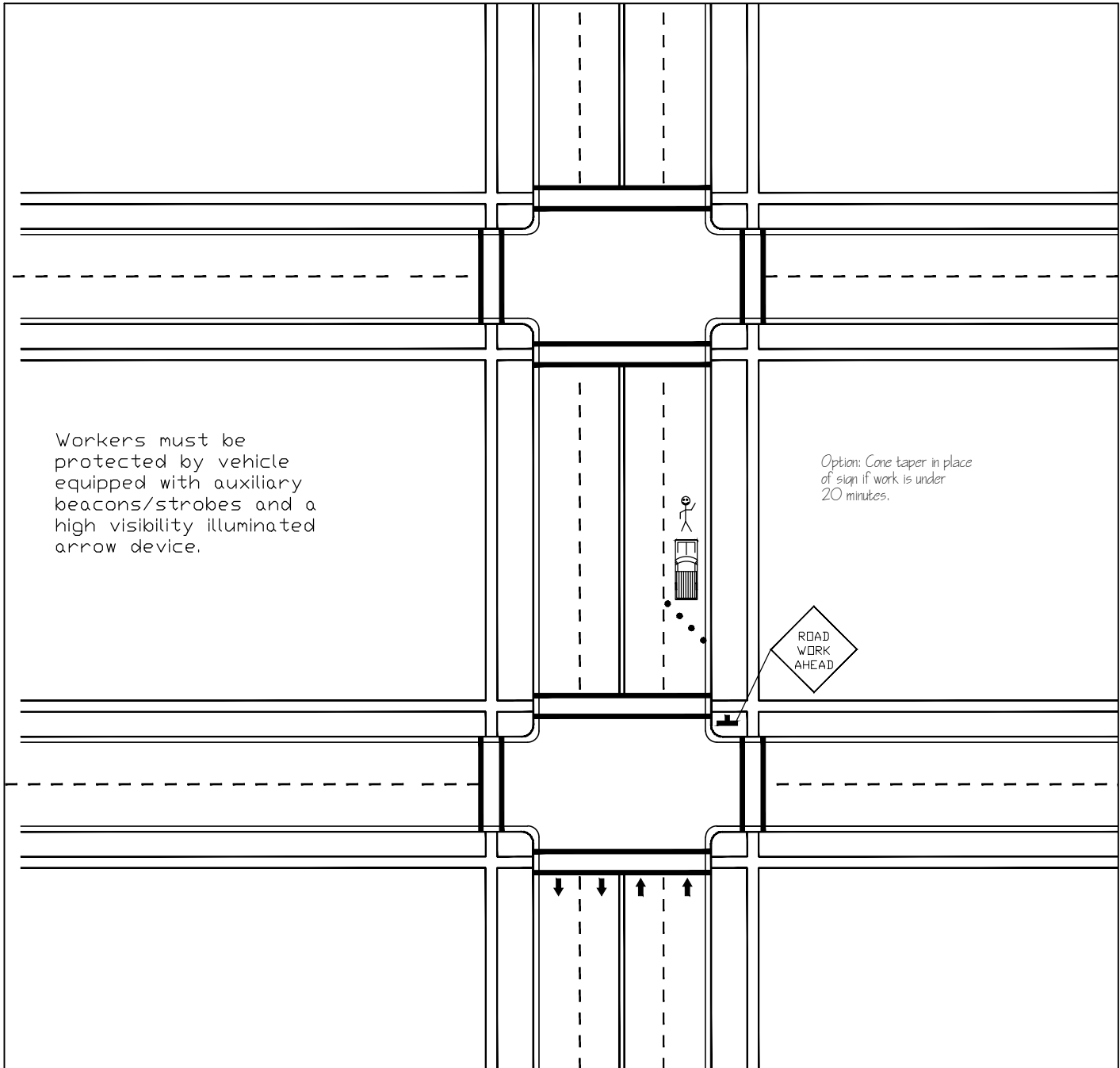
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



MID-BLOCK LANE CLOSURE UNDER 60 MINUTES

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

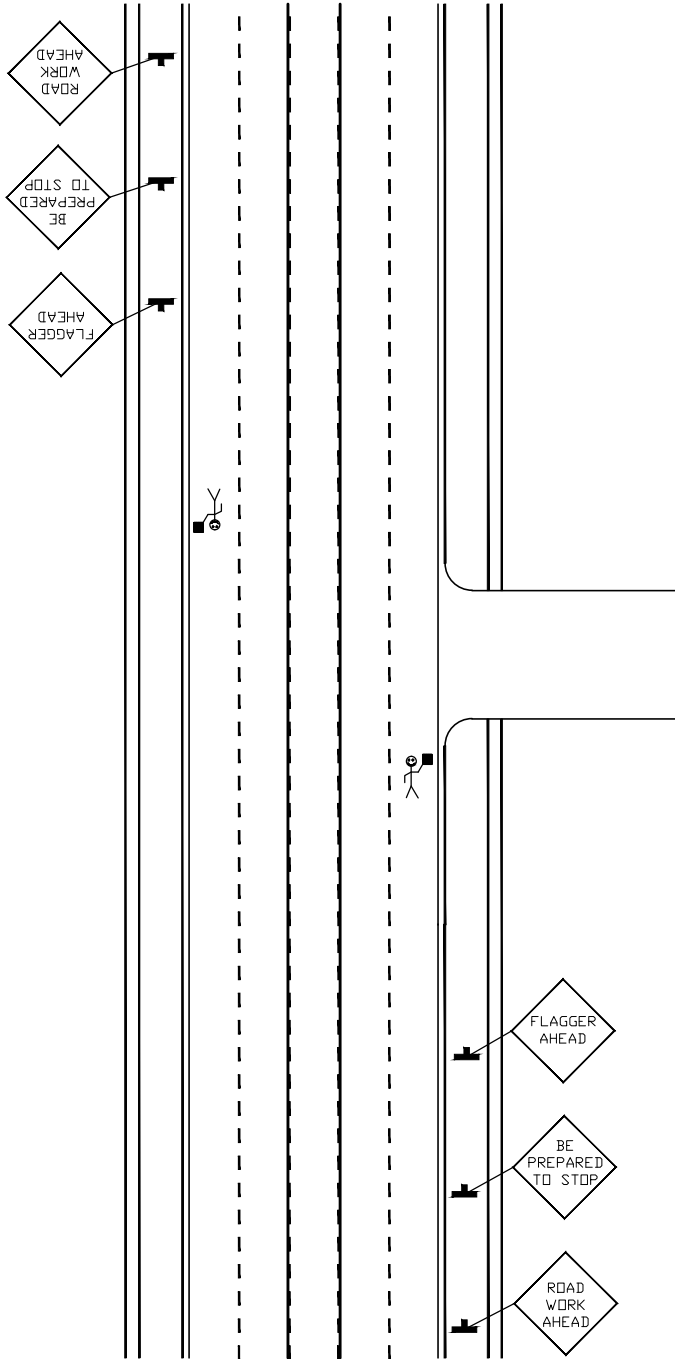
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



TRAFFIC CONTROL RECOMMENDATIONS FOR TRUCK CROSSING

- ☐ APPROVED BY: _____
- ☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

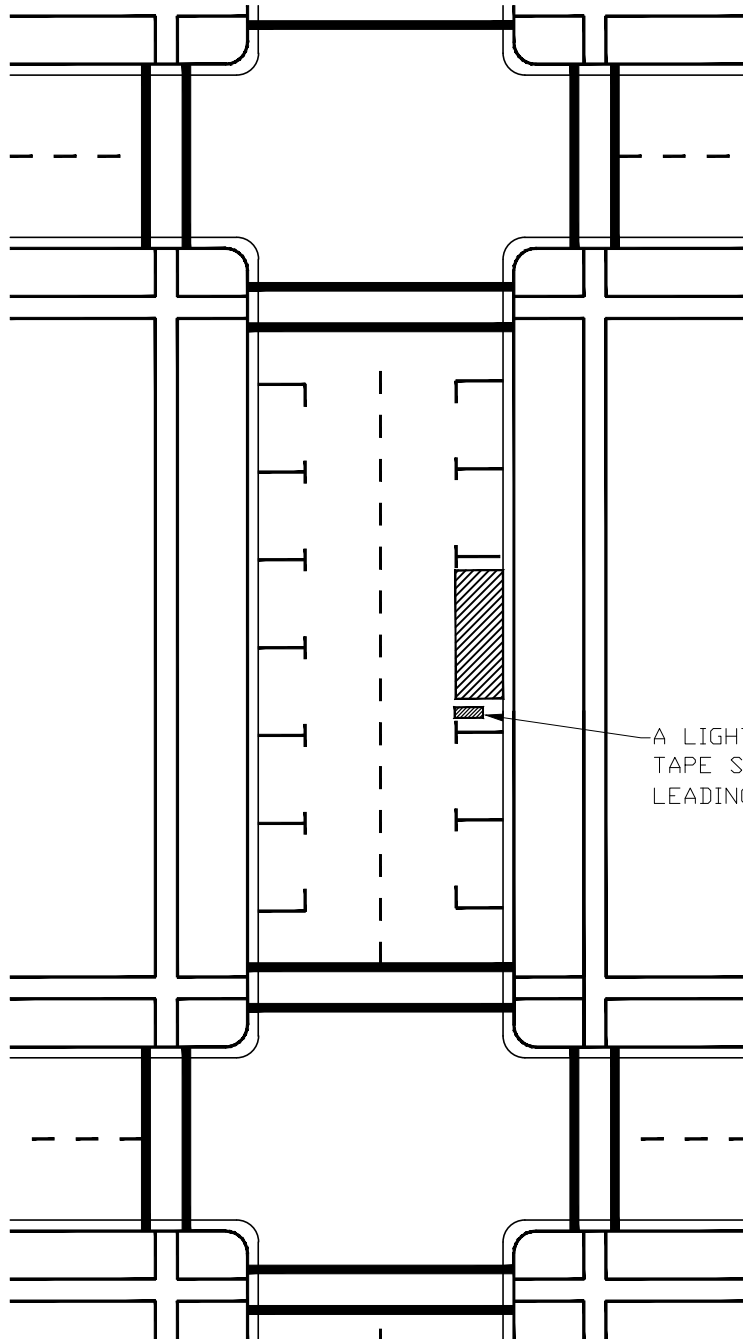
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



A LIGHTED BARRICADE OR REFLECTIVE TAPE SHALL BE INSTALLED ON THE LEADING EDGE OF THE DUMPSTER.

TRAFFIC CONTROL FOR A PORTABLE DUMPSTER

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

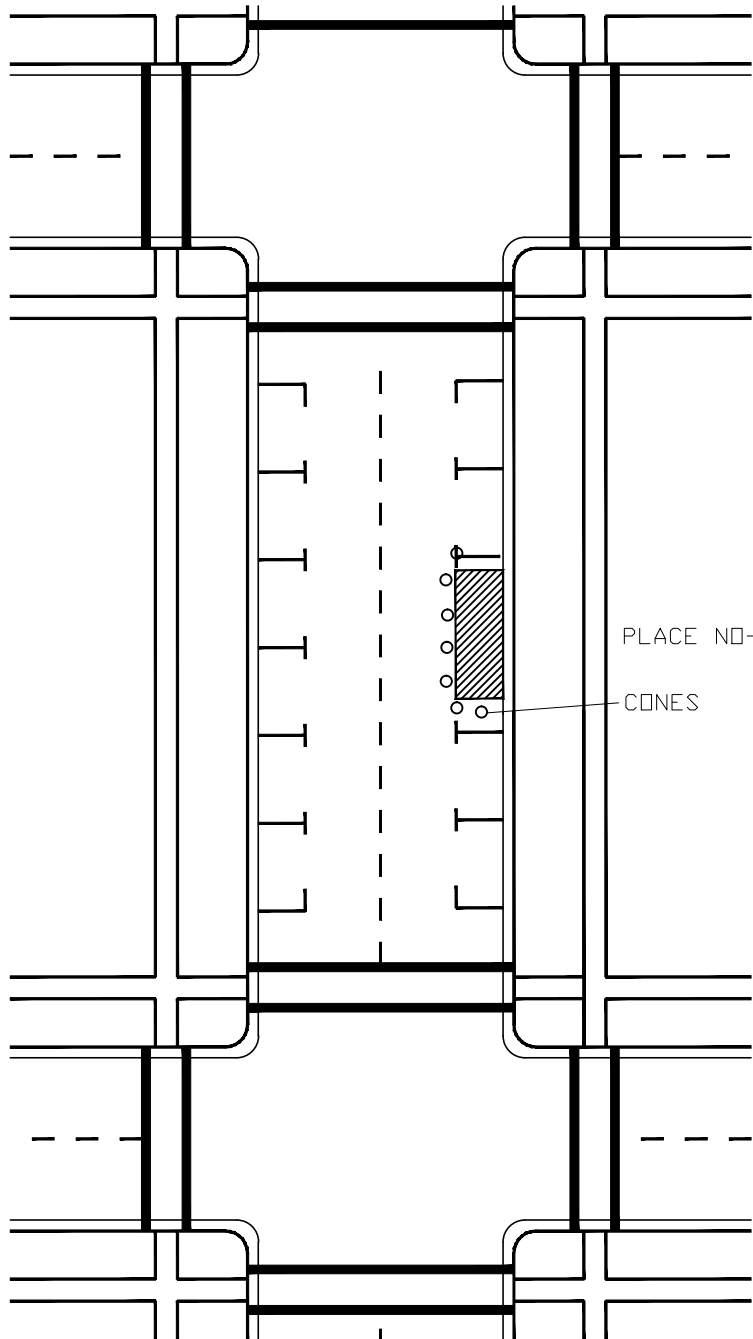
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



TRAFFIC CONTROL
FOR MOVING VAN

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS
FOR CONE PATTERN
(All minimums)

MPH	10	15	20	25	30	35	40	
LANE WIDTH	8'	14	30	54	84	120	164	214
	10'	17	38	67	105	150	204	267
	12'	20	45	80	125	180	245	320
	14'	24	53	94	146	210	286	374
	16'	27	60	107	167	240	327	427

NUMBER OF CHANNELIZATION DEVICES (CONES)

Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

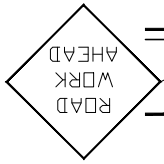
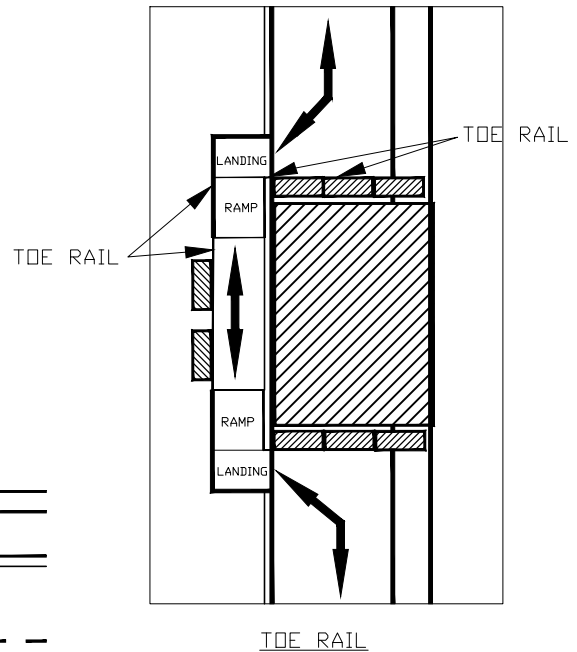
SAMPLE SETUP

NOTE:

PEDESTRIAN WALKWAYS SHALL BE A MINIMUM OF 5 FEET WIDE.

TOE RAIL ON RAMP ENTRANCE AND BARRICADE TOE RAIL SHALL HAVE NO GAPS AND BE PARALLEL.

SEE BYPASS RAMP DETAIL FOR PROPER CONSTRUCTION OF RAMP TO ALLOW FOR PEDESTRIAN AND DISABILITY ACCESS.



BYPASS
WALKWAY FOR
PEDESTRIANS

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

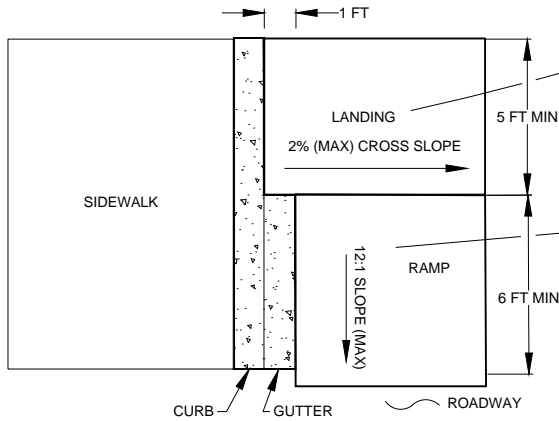
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

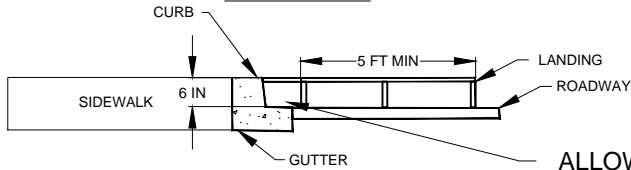
NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



TOP VIEW



SIDE VIEW

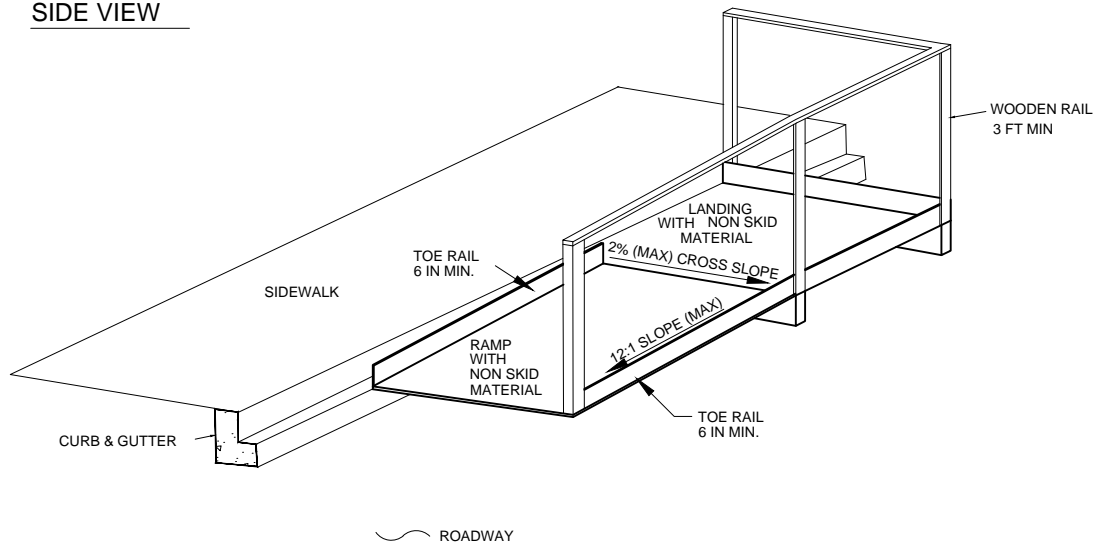
RAMP LANDING SHALL BE 1" X 5' X 5' (MIN) AND FLUSH WITH THE TOP OF THE CURB

RAMP SHALL BE 1" X 5' X 6' (MIN) AND HAVE A 600 POUND LOAD CAPACITY MIN.

NOTES:

1. CONTACT AND COORDINATE IMPACTED TRANSIT AGENCIES PRIOR TO IMPLEMENTING ANY CLOSURES.
2. ADA ACCOMODATIONS MUST BE ADDRESSED AND CONSIDERED FOR ALL WORK OPERATIONS. EXISTING ADA FACILITIES MUST BE MAINTAINED.

ALLOW FOR STORM DRAINAGE IN GUTTER LINE



PEDESTRIAN BYPASS RAMPS FOR TEMPORARY TRAFFIC CONTROL MINIMUM STANDARDS

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

NUMBER OF CHANNELIZATION DEVICES (CONES)

Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

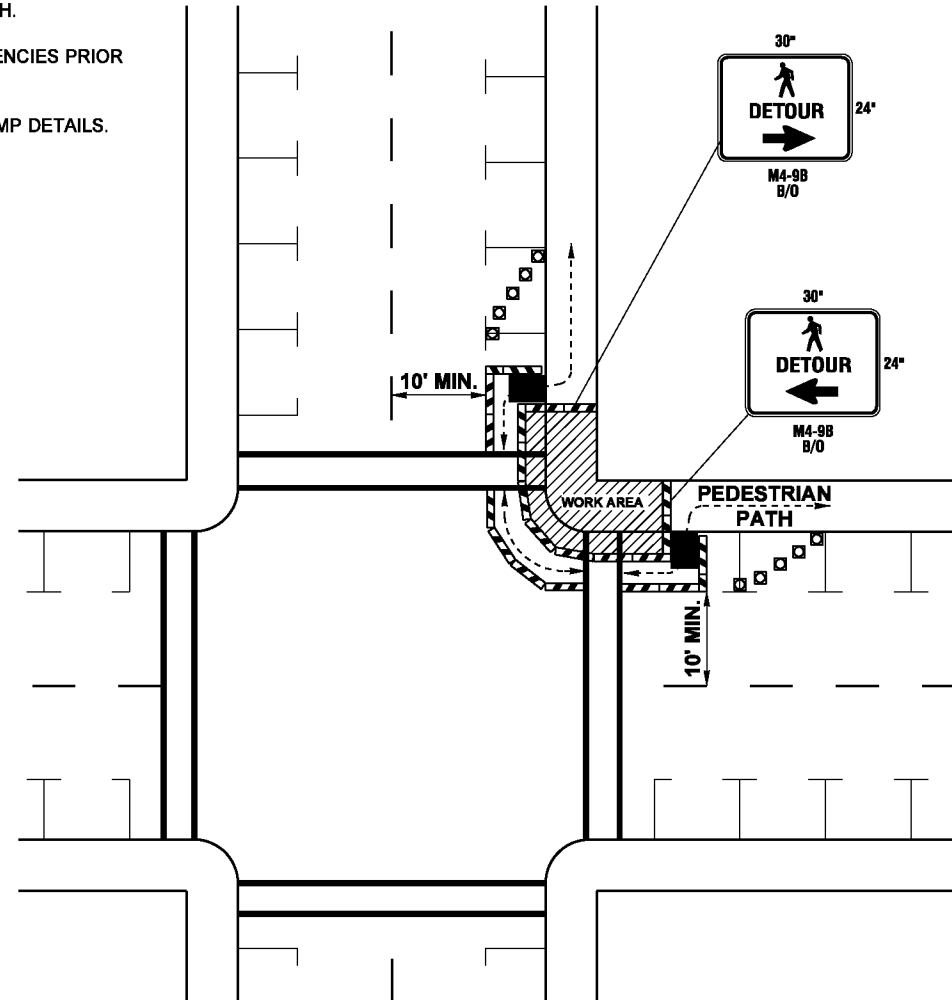


R8-3
24" x 30"
R/W

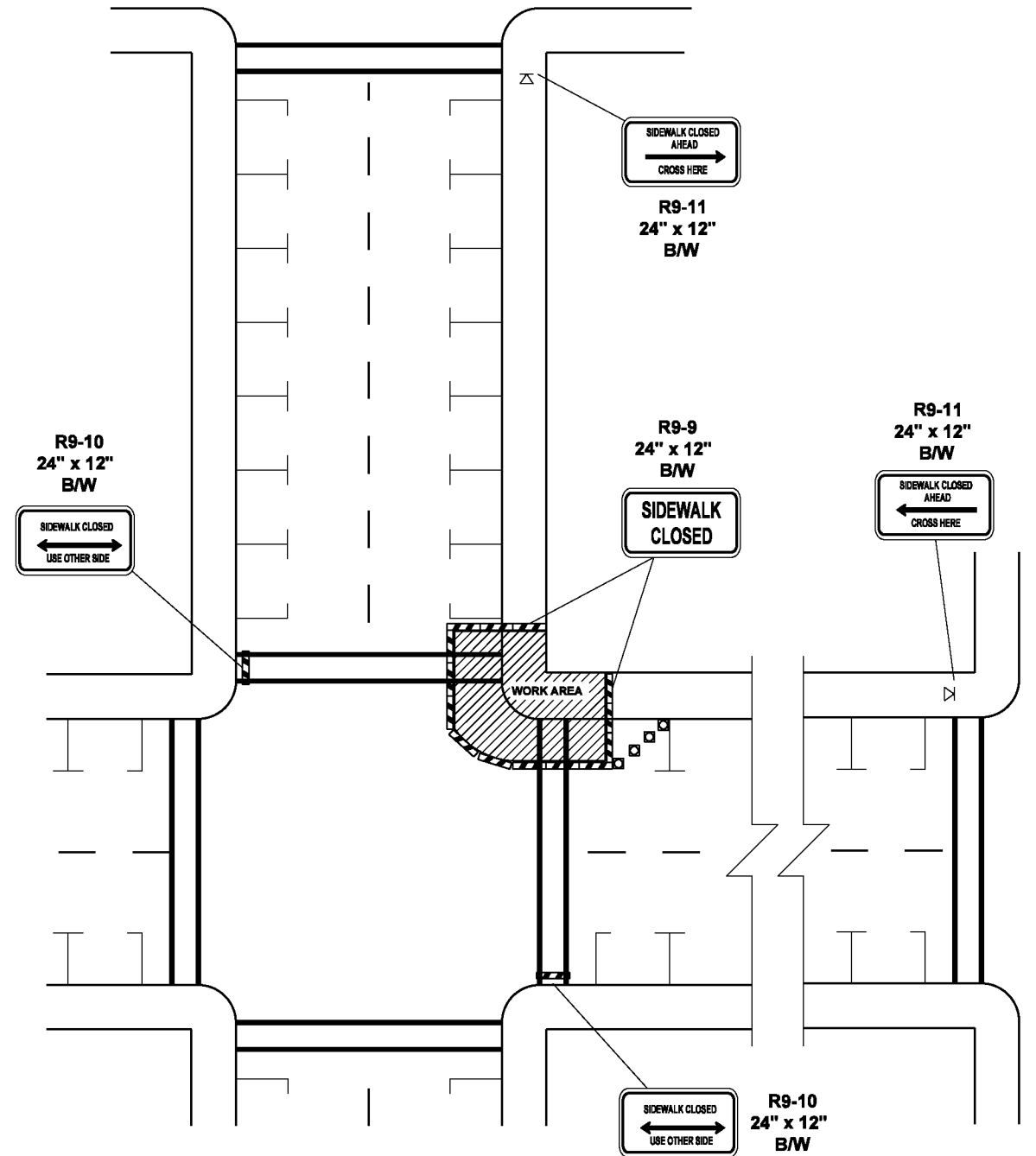
INSTALL ON TYPE 2 BARRICADES THROUGHOUT THE WORK AREA
24 HOURS PRIOR TO IMPLEMENTING TRAFFIC CONTROL.
PRIOR NOTIFICATION OF LOCAL LAW ENFORCEMENT REQUIRED.

NOTES:

1. CONTROLS SHOWN ARE FOR PEDESTRIAN TRAFFIC ONLY.
2. MAINTAIN A MINIMUM OF 48" FOR A PEDESTRIAN PATH.
3. CONTACT AND COORDINATE IMPACTED TRANSIT AGENCIES PRIOR TO IMPLEMENTING ANY CLOSURES.
4. SEE SHEET TC-52 FOR TEMPORARY PEDESTRIAN RAMP DETAILS.
5. ADA PEDESTRIAN FACILITIES MUST BE MAINTAINED.



SIDEWALK DIVERSION



SIDEWALK DETOUR

LEGEND

- TEMPORARY SIGN LOCATION
- CHANNELIZING DEVICES
- PEDESTRIAN CHANNELIZING DEVICES
- TEMPORARY PEDESTRIAN RAMP FOR SIDEWALKS

INTERSECTION PEDESTRIAN TRAFFIC CONTROL

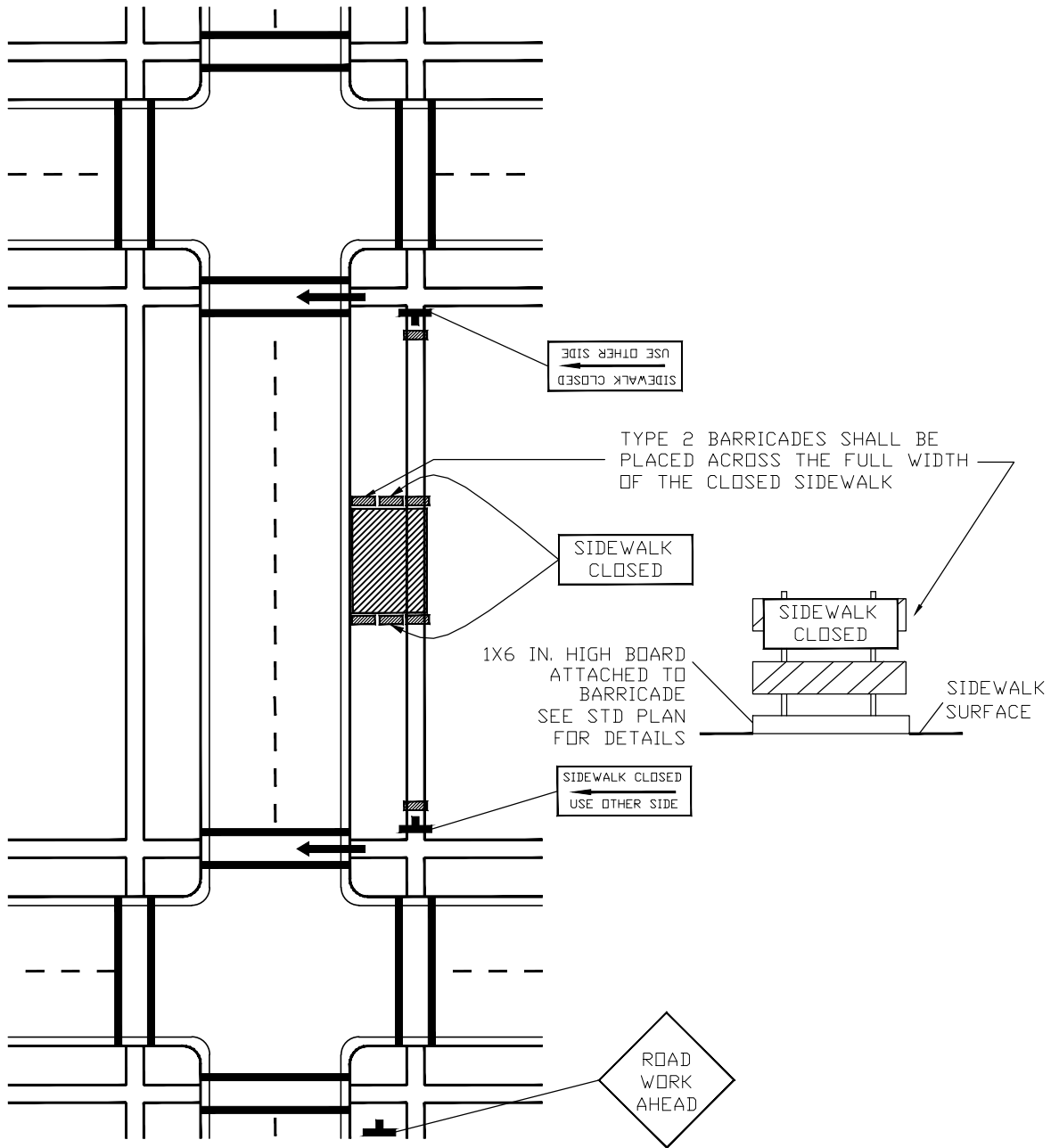
NOT TO SCALE

FILE NAME	S:\Design R P& S\4-Standards\2-Plan Sheet Library\10-Work Zone Traffic Control (TC)\TC-16\TC-16.dgn	REGION NO.	STATE	FED.AID PROJ.NO.						
TIME	9:18:30 AM	10	WASH							TC16
DATE	9/19/2012									
PLOTTED BY	CyfordL									
DESIGNED BY										
ENTERED BY										
CHECKED BY										
PROJ. ENGR.										
REGIONAL ADM.										
REVISION		DATE	BY	CONTRACT NO.	LOCATION NO.	P.E. STAMP BOX	DATE	P.E. STAMP BOX	DATE	



PEDESTRIAN CONTROL AND PROTECTION

SAMPLE SETUP



SIDEWALK
CLOSURE

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

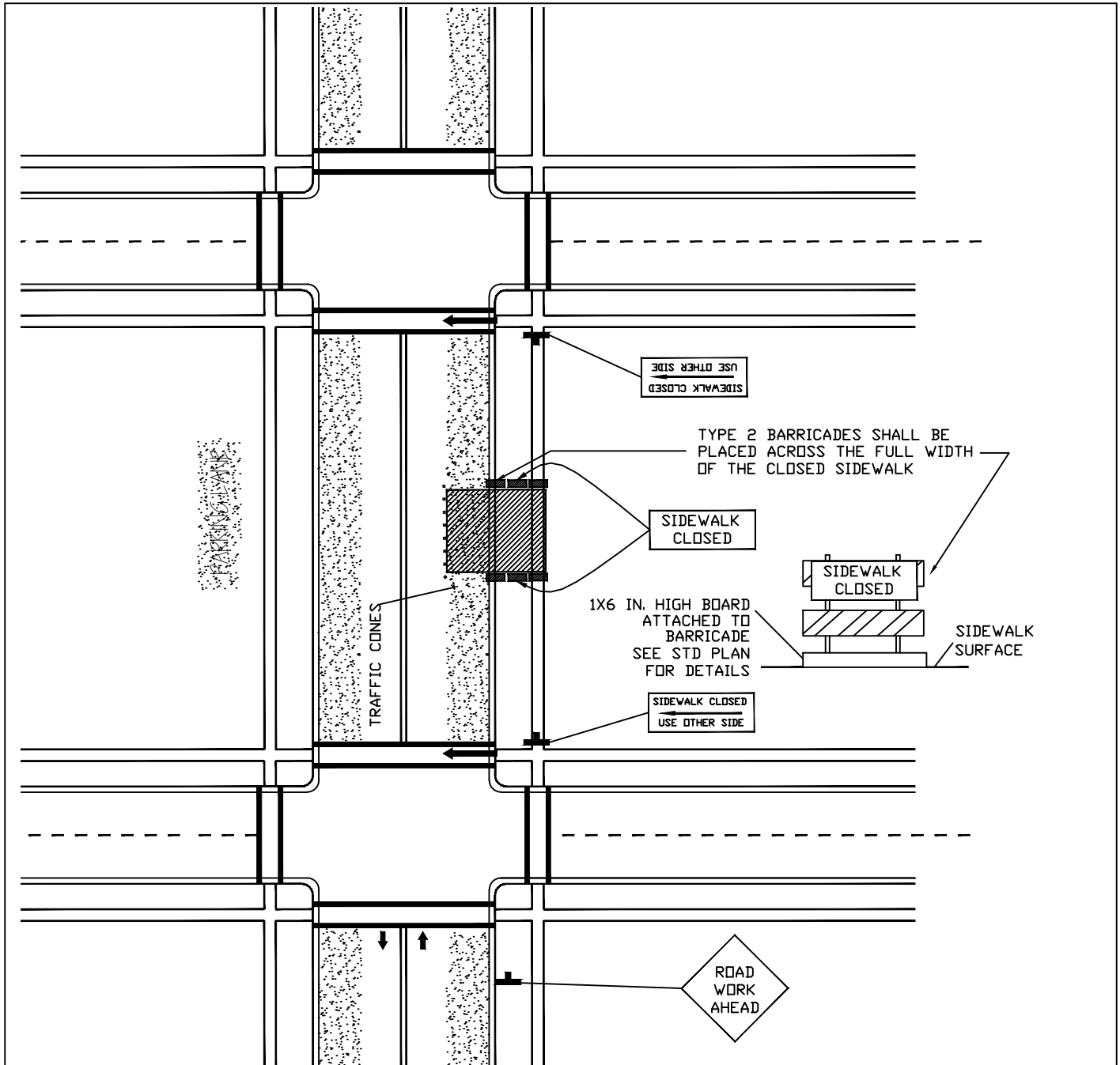
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



SIDEWALK / PARKING CLOSURE

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

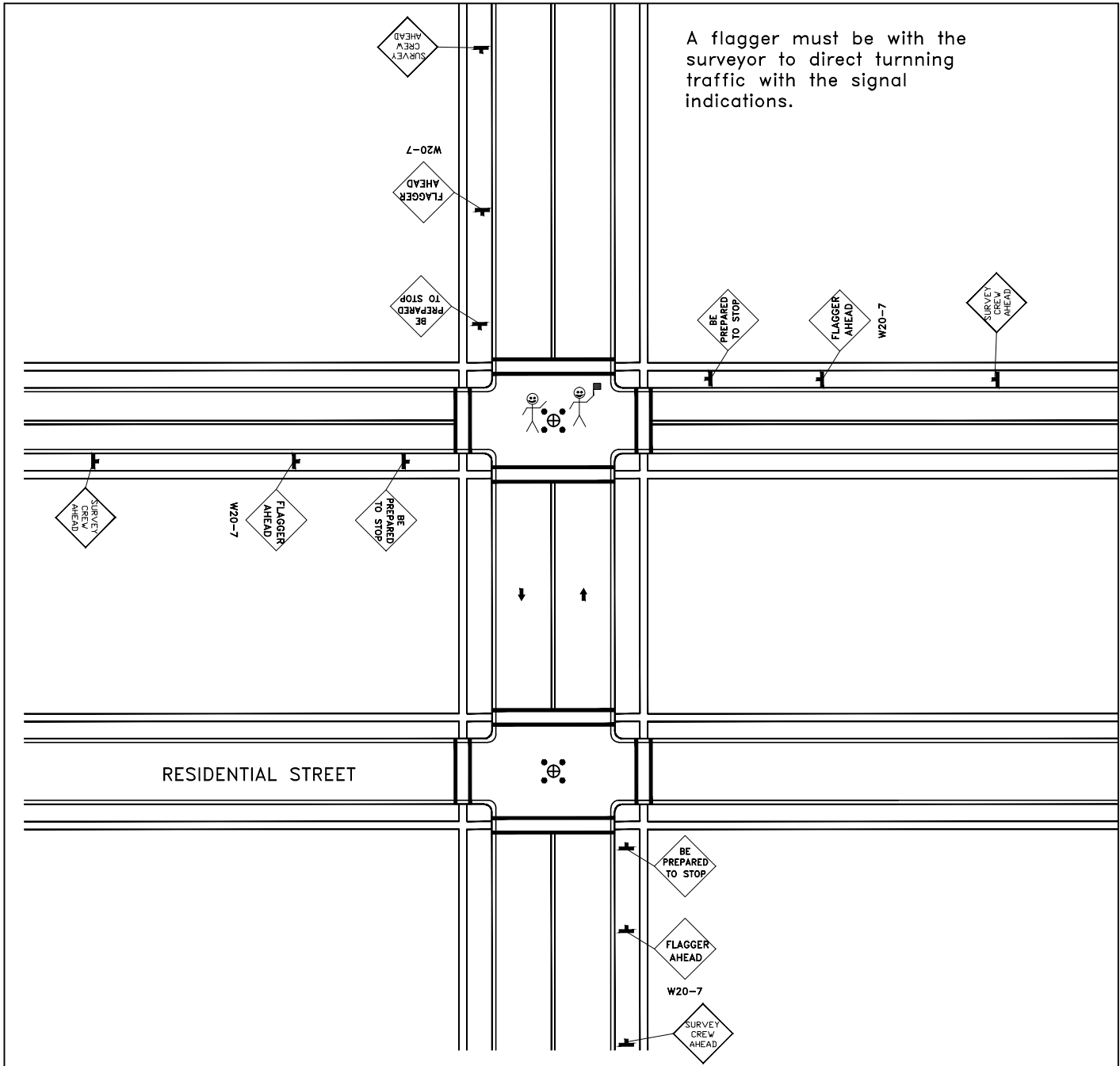
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



SURVEY TWO LANE ARTERIAL INTERSECTION

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

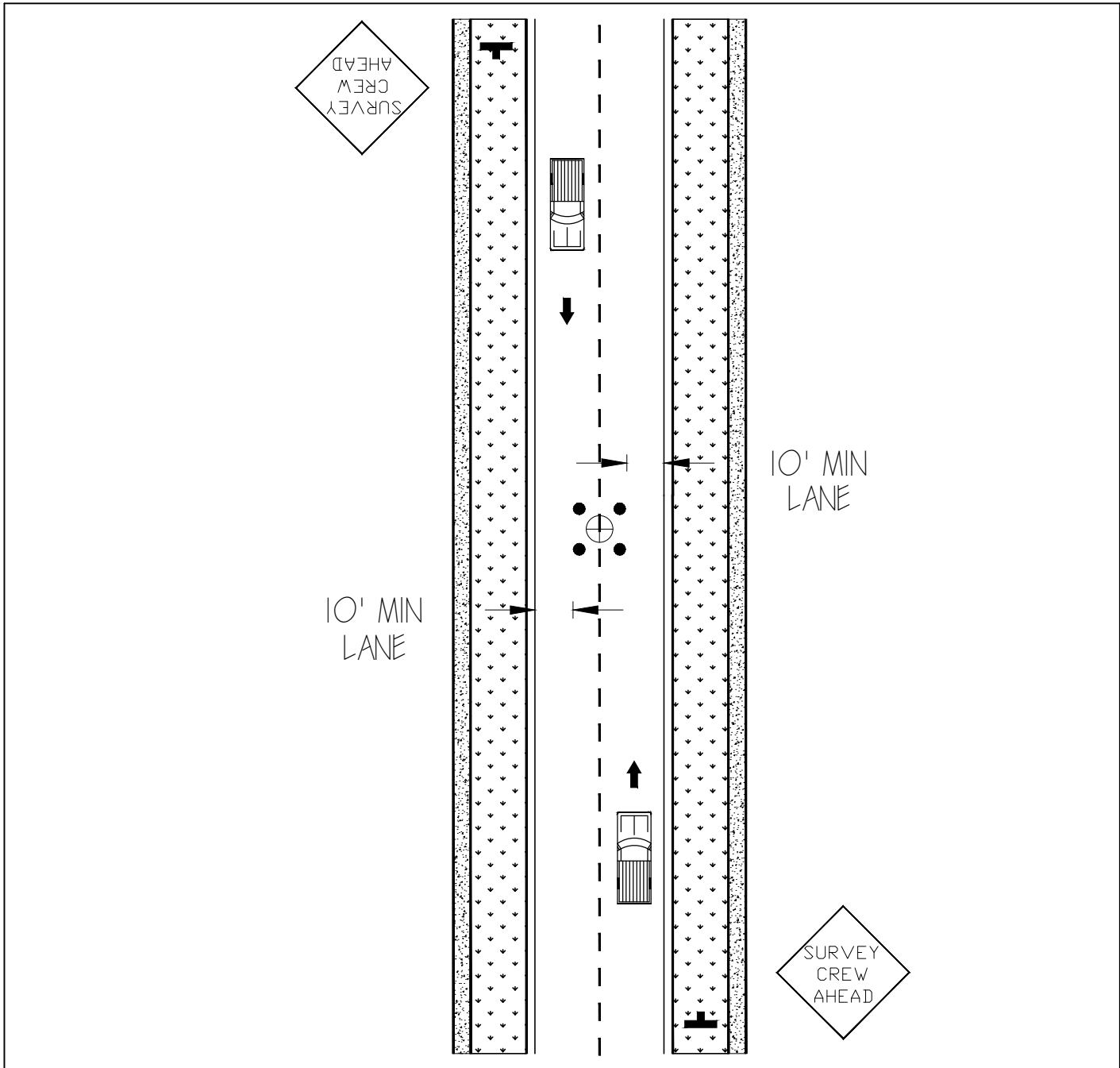
Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



SURVEY TWO LANE ARTERIAL MID-BLOCK		MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)							
		MPH	10	15	20	25	30	35	40
LANE WIDTH	8'	14	30	54	84	120	164	214	
	10'	17	38	67	105	150	204	267	
	12'	20	45	80	125	180	245	320	
	14'	24	53	94	146	210	286	374	
	16'	27	60	107	167	240	327	427	
		NUMBER OF CHANNELIZATION DEVICES (CONES)							
		Offset cones 1 foot maximum.							

☐ APPROVED BY: _____

☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

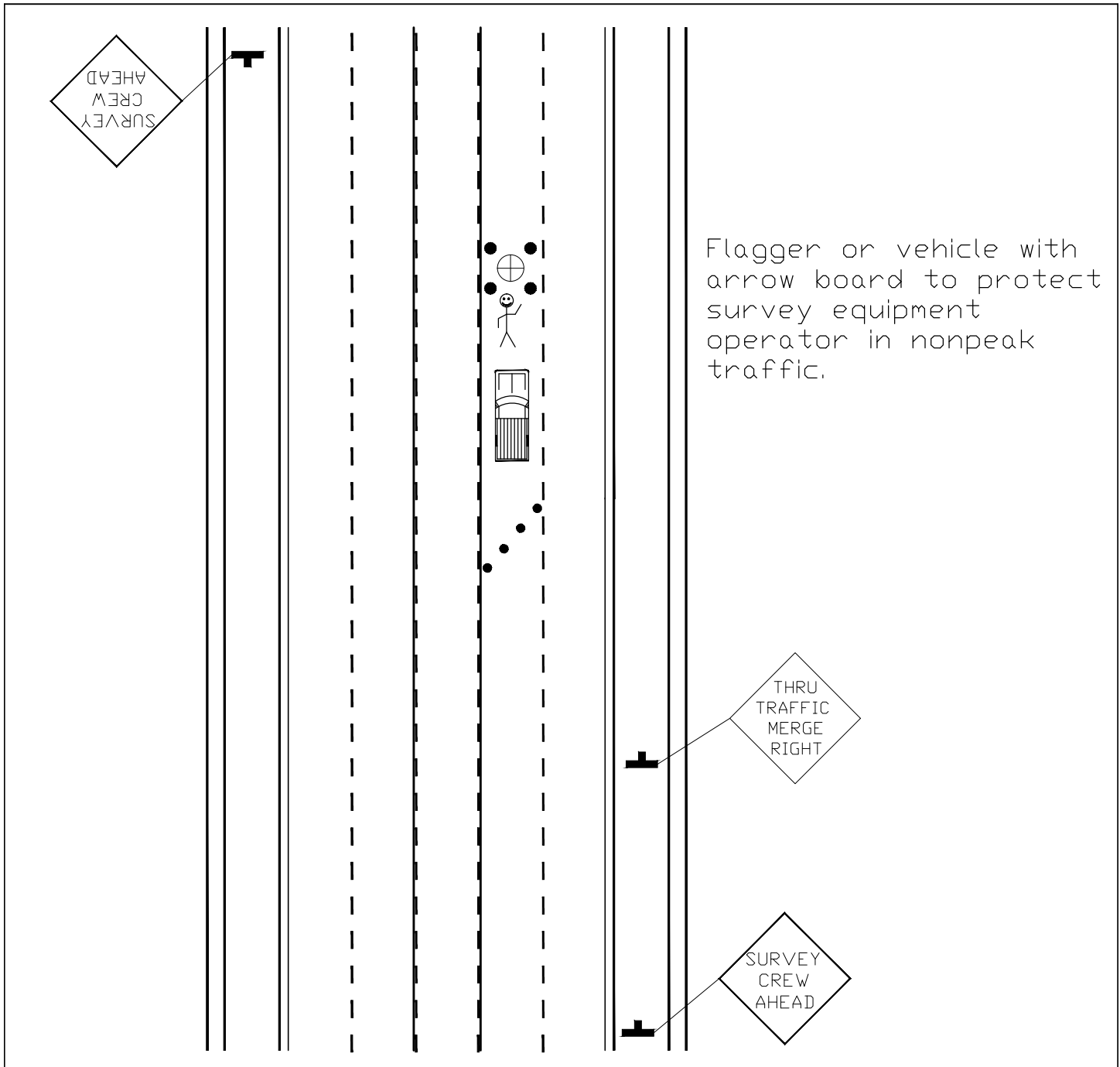
MUST BE OUT OF THE ROAD BY DATE & TIME: _____

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



Flagger or vehicle with arrow board to protect survey equipment operator in nonpeak traffic.

SURVEY
MULTI-LANE
ARTERIAL

MERGING TAPER LENGTHS
FOR CONE PATTERN
(All minimums)

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC, AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

[illegible]

TRAFFIC CONTROL
RECOMMENDATIONS

☐ APPROVED BY:

☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)								
MPH	10	15	20	25	30	35	40	
LANE WIDTH	8'	14	30	54	84	120	164	214
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	12'	20	45	80	125	180	245	320
	14'	24	53	94	146	210	286	374
	16'	27	60	107	167	240	327	427
	NUMBER OF CHANNELIZATION DEVICES (CONES)							
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NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

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[illegible]

TRAFFIC CONTROL
RECOMMENDATIONS

☐ APPROVED BY:

☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

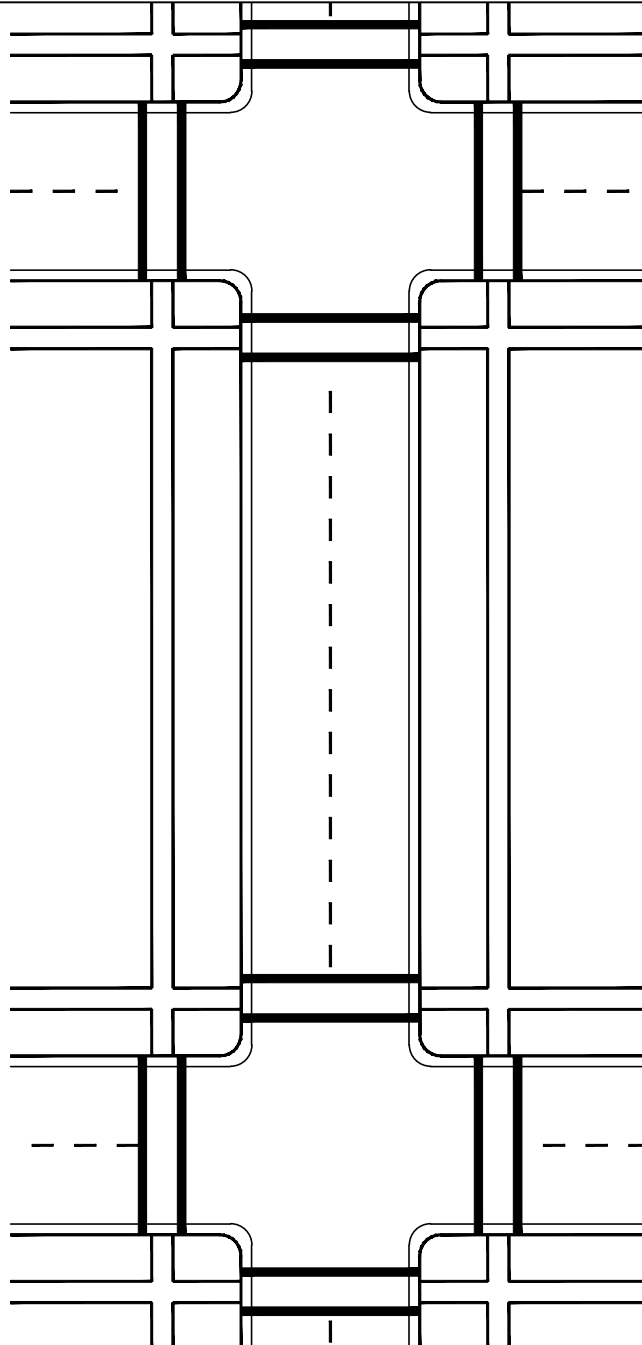
START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)								
MPH	10	15	20	25	30	35	40	
LANE WIDTH	8'	14	30	54	84	120	164	214
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	14'	24	53	94	146	210	286	374
	16'	27	60	107	167	240	327	427
	NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.								

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



TRAFFIC CONTROL RECOMMENDATIONS

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

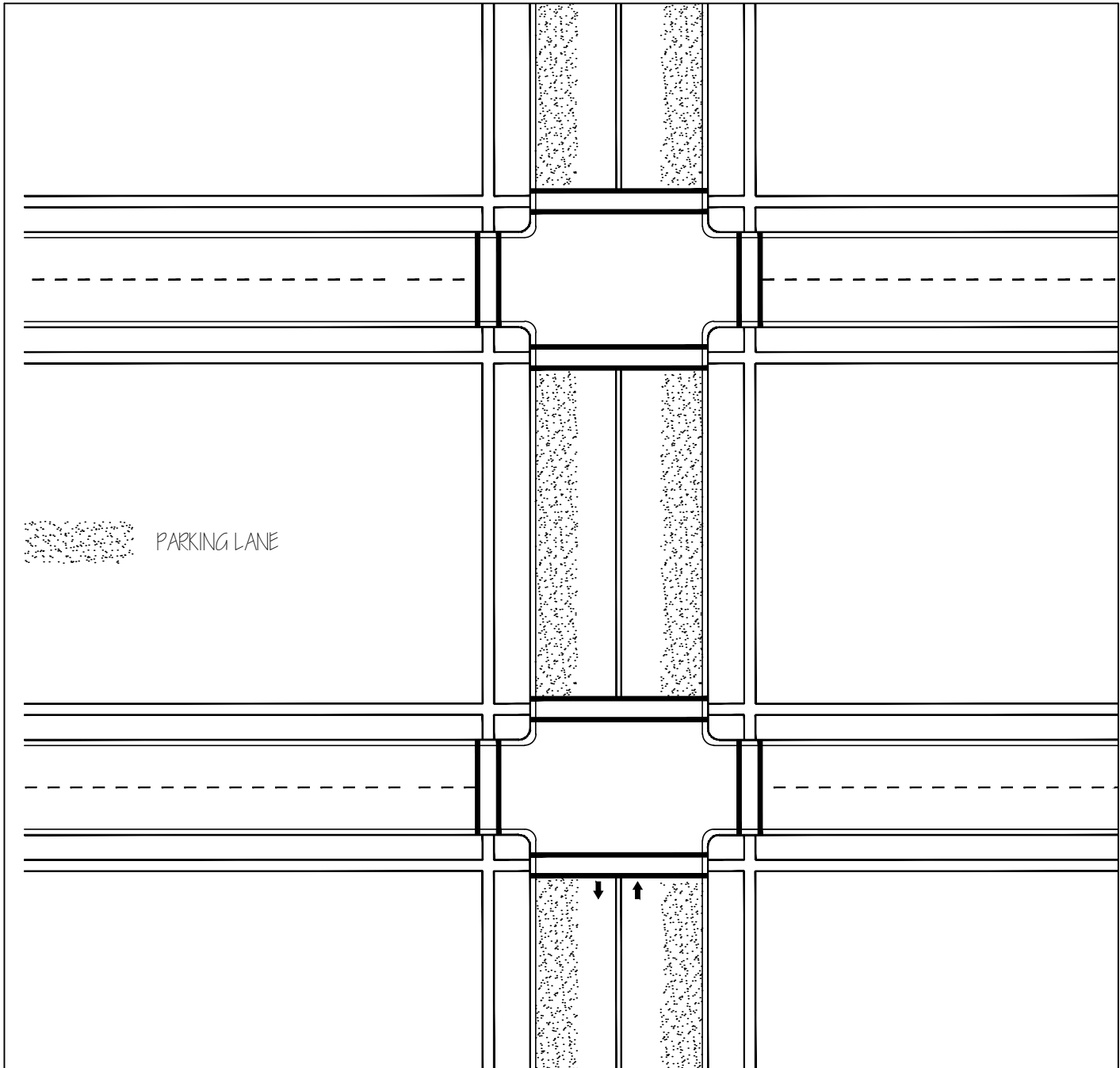
MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427
NUMBER OF CHANNELIZATION DEVICES (CONES)							
Offset cones 1 foot maximum.							

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NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



TRAFFIC CONTROL RECOMMENDATIONS

- ☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN

(All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

NUMBER OF CHANNELIZATION DEVICES (CONES)

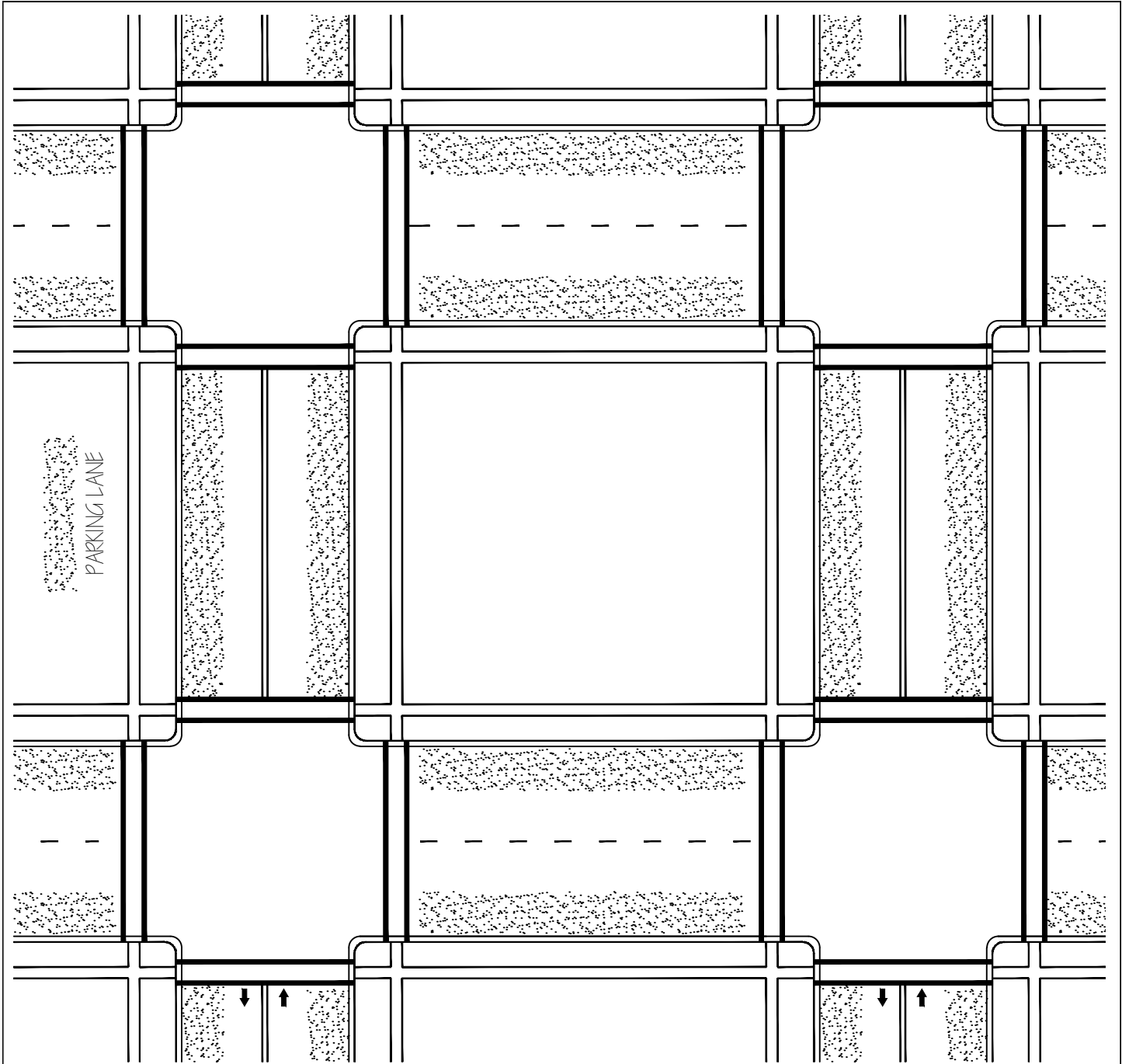
Offset cones 1 foot maximum.

NOTE 1: MAINTAIN LOCAL ACCESS AND PROTECTED WALKWAYS AT ALL TIMES. PROVIDE AND MAINTAIN BARRICADES, SIGNS, LIGHTS, ETC., AS PER "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AT ALL TIMES. STREETS AND WALKWAYS SHALL BE KEPT CLEAR OF DEBRIS DROPPED OR TRACKED BY VEHICLES ENTERING OR EXITING THE WORK SITE. FAILURE TO COMPLY WILL RESULT IN A STOP WORK ORDER AND/OR CITATION.

NOTE 2: NO WORK SHALL BE SCHEDULED ON STREETS OR WALKWAYS WITHIN THE CITY OF TACOMA BUSINESS DISTRICTS FROM THANKSGIVING DAY THROUGH NEW YEAR'S DAY.

NOTE 3: SIGN SPACING: URBAN LOW SPEED 25-30 MPH SIGNS MUST BE PLACED 100' APART. URBAN HIGH SPEED 35-40 MPH SIGNS MUST BE PLACED 350' APART.

SAMPLE SETUP



TRAFFIC CONTROL RECOMMENDATIONS

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

START TRAFFIC CONTROL SET UP DATE & TIME: _____

MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS FOR CONE PATTERN (All minimums)

MPH	10	15	20	25	30	35	40
8'	14	30	54	84	120	164	214
10'	17	38	67	105	150	204	267
12'	20	45	80	125	180	245	320
14'	24	53	94	146	210	286	374
16'	27	60	107	167	240	327	427

LANE WIDTH

NUMBER OF CHANNELIZATION DEVICES (CONES)

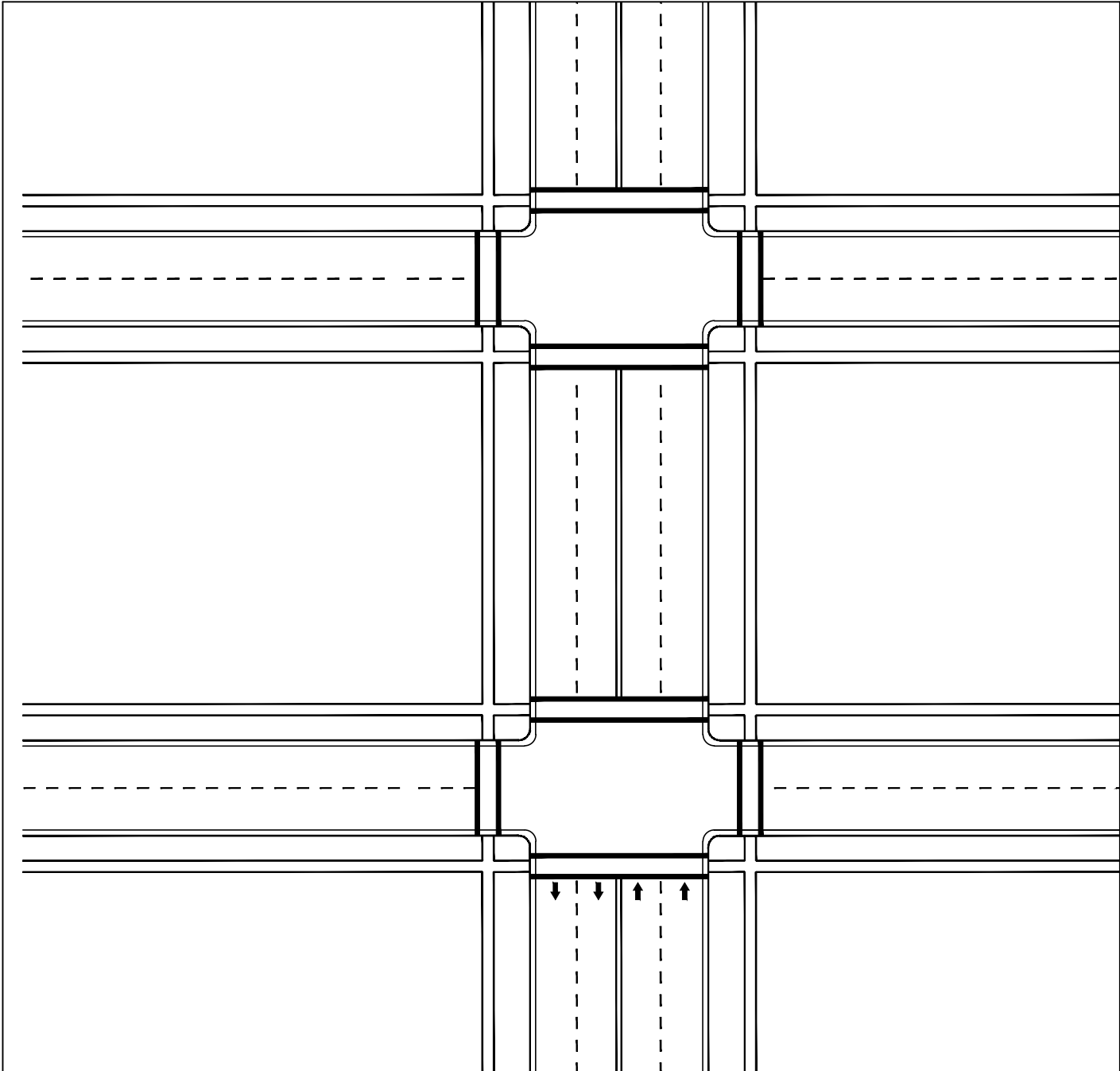
Offset cones 1 foot maximum.

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SAMPLE SETUP



TRAFFIC CONTROL
RECOMMENDATIONS

☐ APPROVED BY: _____
☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS
MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

EVENING AND WEEKENDS ONLY

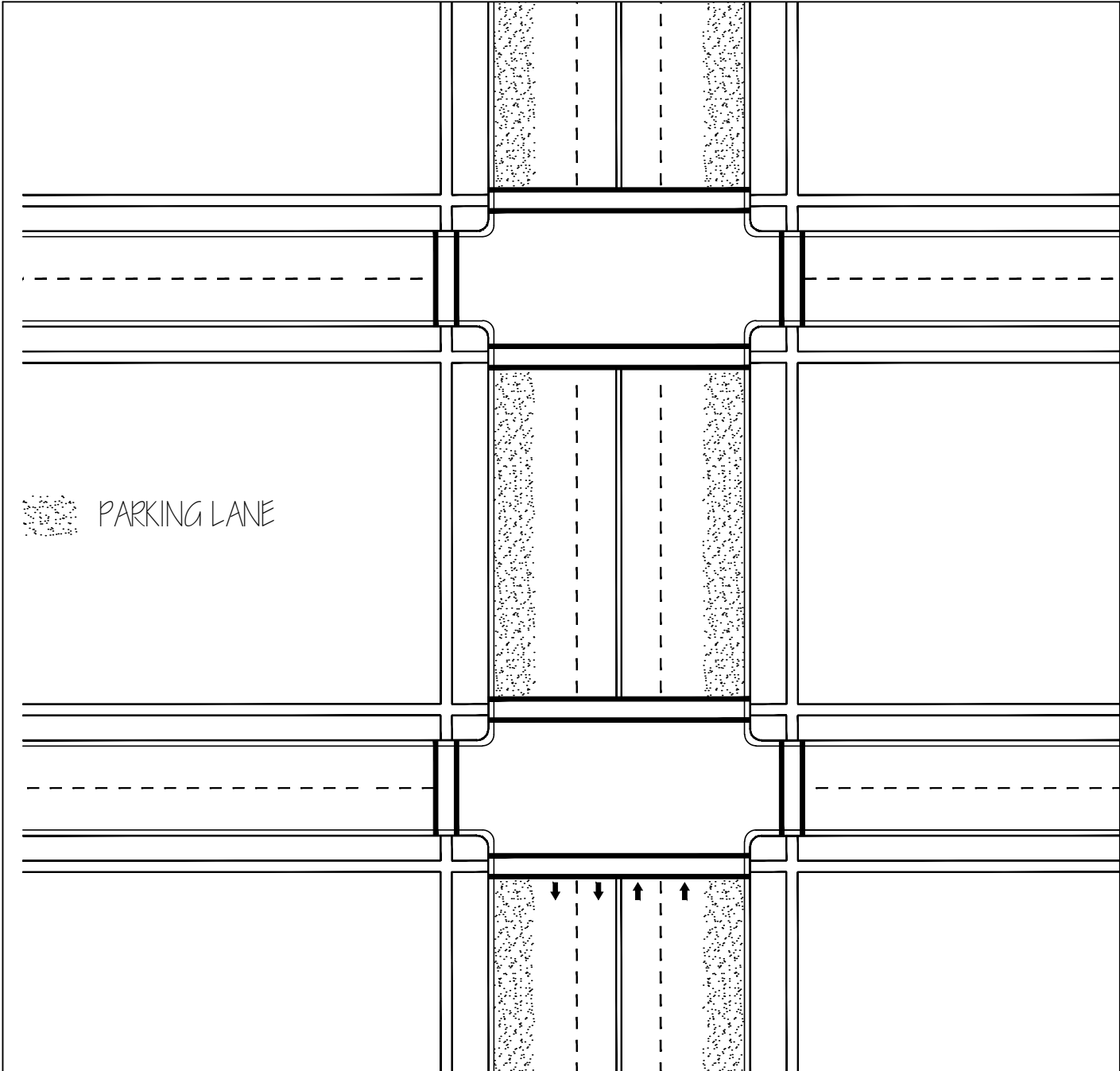
START TRAFFIC CONTROL SET UP DATE & TIME: _____
MUST BE OUT OF THE ROAD BY DATE & TIME: _____

MERGING TAPER LENGTHS
FOR CONE PATTERN
(All minimums)

MPH	10	15	20	25	30	35	40	
LANE WIDTH	8'	14	30	54	84	120	164	214
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SAMPLE SETUP



TRAFFIC CONTROL
RECOMMENDATIONS

☐ APPROVED BY: _____
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START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS
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[illegible]

TRAFFIC CONTROL
RECOMMENDATIONS

☐ APPROVED BY:

☐ APPROVED WITH CONDITIONS BY: _____ DATE: _____

START TRAFFIC CONTROL SET UP DATE: _____ OFF PEAK 9:00 AM WEEKDAYS

MUST BE OUT OF THE ROAD BY DATE: _____ OFF PEAK 3:30 PM WEEKDAYS

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MPH	10	15	20	25	30	35	40	
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APPENDIX E

Instructions for GIS Web Map Application



ACCESS THE MAP APP

On a computer, tablet, or phone, copy this URL into your browser:

<https://tacoma.maps.arcgis.com/apps/webappviewer/index.html?id=65d2928aae254455b12fa362b5cc9a4c>

When it loads, you'll see a map with two layers. The first layer is a set of shapes of varying colors marking work sites, where each symbol identifies the funding source for that work site categorized by Group. The second layer is a map of yellow lines highlighting arterial streets, which is useful for identifying work site traffic control plans. See the Legend pane on the right side of the screen for a guide to the map symbols. This pane is automatically open when you open the map, but you can hide it by clicking the "x" icon at the top right of the legend. Reopen it by clicking the **Legend**  button.

GET A BETTER VIEW

The map opens with a view of all of Tacoma. To return to this view at any time, press the **Default Extent**  button. Move the field of view around by clicking and dragging on the map. To zoom in or out, use your mouse's scroll wheel or the **Zoom In/Out**  buttons at the top left. If you zoom in far enough, satellite imagery will become visible, allowing you to see photography of the project areas from above. Alternatively, quickly zoom to a specific area by typing an address, street name, or street intersection into the **Search**

Bar  Find address or place .

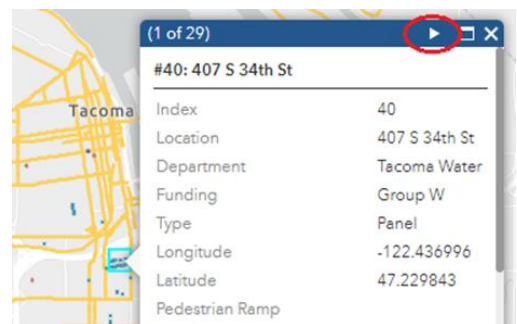
SEE WORK SITE INFORMATION

Each work site has fields of information associated with it, including its department, location, and type. See the Field List at the end of this document for more information about the fields. Depending on how many work sites' information you want to see at once, you can view work site information as a table in several ways. The next sections outline how to view information for four cases: single work site, all work sites, all the work sites in your map view, or a specific selection of work sites.

SINGLE WORK SITE

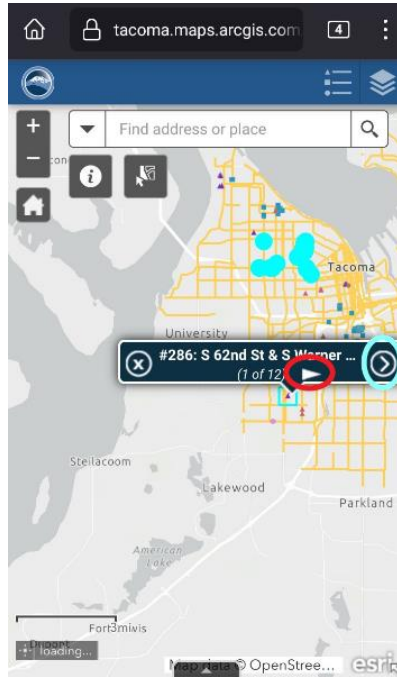
Click on a work site symbol on the map and a pop-up will appear. The pop-up will look different depending on what kind of device you are using:

- If you are using a device with a large screen, such as a laptop or desktop computer, the pop-up will show a table of site data (see Screenshot 1). If there are multiple work sites near where you clicked, the pop-up will have a table for each nearby work site and an arrow will appear at the top of the pop-up (circled in red). Click the arrow to scroll through the tables.



Screenshot 1

- If you are using a phone or other small device, the pop-up will show the site name (see Screenshot 2). If there are multiple work sites nearby, an arrow will appear (circled in red). Scroll through the nearby site names with this arrow. To see a table of site data, click the far right arrow (circled in blue). You will see a screen like the one in Screenshot 3. From here, if multiple work sites are nearby, scroll through the tables with the arrow circled in red.



Screenshot 3



Screenshot 2


ALL WORK SITES

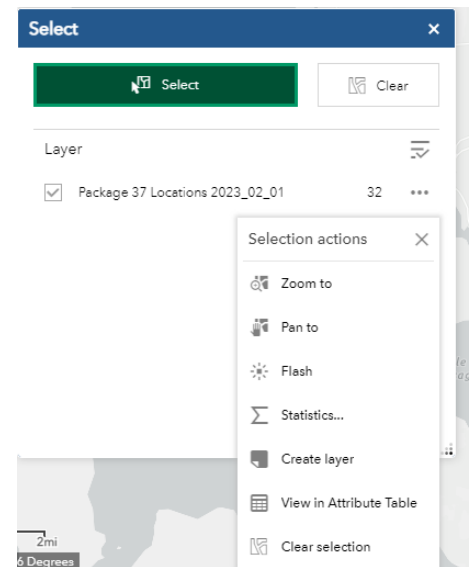
Click on the **Open Attribute Table** button at the bottom-center of the map. You will see a large table with a row of data for every work site in this project. Use the scroll bar on the bottom of the table to see all the data fields and the scroll bar on the right of the table to scroll through the work sites.

CURRENTLY VISIBLE WORK SITES

With the attribute table open, click on the “Filter by map extent” button at the top of the table to activate it (the button is blue/white when activated and black/gray when not). When this is activated, the table will only display information for work sites that are currently visible in your map. After you zoom and re-center the map, click the “Refresh” button to update the table.



SPECIFIC SELECTION OF WORK SITES

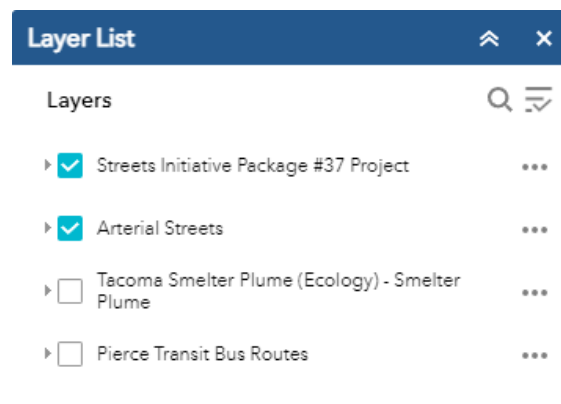
The Select tool allows you to see a table for multiple work sites of your choosing. Click the **Select**  button to open the Select pane (see Screenshot 4). Click on the green Select button in the pane to activate or deactivate the select tool (the button is dark green when activated and light green when deactivated). While the select tool is activated, click and drag to draw a rectangle on the map that covers all the work sites you wish to select. Selected work sites will be highlighted in blue on the map and in the attribute table. (If not using a mobile device, add more work sites to the current selection by holding the Shift key while clicking and dragging. Remove work sites from the selection by holding the Ctrl key while clicking and dragging.) Clear the entire selection with the Clear button. When you are finished making your selection, open the “Selection actions” menu by clicking the three dots in the Select panel. Click on “View in Attribute Table” to see a table containing only the information for the selected work sites.



Screenshot 4

ADD DATA ABOUT GARBAGE PICKUP, SMELTER PLUME, BUS ROUTES, & BICYCLE ROUTES

For reference, you may add layers of information about garbage pickup days, Smelter Plume contamination, Pierce Transit bus routes, and bicycle routes to the map. To do this, click on the **Layer List**  symbol at the top right of the page. You will see a layer list like the one in Screenshot 5. A “checked” checkbox next to a layer means it is visible on the map, and an “unchecked” checkbox means it is hidden from the map. Click on a checkbox to check or uncheck it. After adding a layer to the map, go back to the **Legend**  tab to see what its colors and symbols mean. The bus route and residential pickup layers are selectable on the map; simply click in the middle of a pickup area to see its trash/garbage/yard waste pickup days, or click on a bus route line to see information about it.

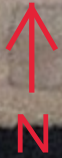


Screenshot 5

FIELD LIST

Field Name	Description
Key	Numerical index unique to each work site. Used as identifier in work site
Work-sites	Address associated with work site
Type	Brief description of work
Funding	Funding source assigned to the work site by Group
Longitude	Longitude of work site location (decimal degrees)
Latitude	Latitude of work site location (decimal degrees)
Arterial Traffic Control	If the work site is located on an arterial street, this field has a value of 1
Residential Traffic Control	If the work site is located on a residential street, this field has a value of 1
Pedestrian Ramp	Quantity of concrete pedestrian curb ramps
Root/Tree Issues	If the work site area has root/tree issues, this field has a value of 1
Adjust CB	Quantity of CBs that need adjustment at work site
Replace CB	Quantity of CBs to replace at work site
Connect to new CB	Quantity of connections to new CBs at work site
Adjust Manhole	Quantity of Manholes that need adjustment at the work site
Adjust Gate Valve	Quantity of Gate Valves that need adjustment at the work site
Adjust Junction Box	Quantity of junction boxes that need adjustment at the work site
Adjust Water Meter Box	Quantity of Water Meter Boxes that need adjustment at the work site
Concrete Panel Square Yards	Area of concrete street panel (square yards)
C6 Square Yards	Area of concrete (square yards) other than panels
Asphalt Square Yards	Area of asphalt (square yards)
Curb LF	Length (linear feet) of curb to be replaced
Total Sq Ft	Area (square feet) of work site
Striping LF	Length (linear feet) of striping
Cont# > 20 ppm	Work site located within Smelter Plume with area that is defined as greater than 20 parts per million of contaminants. Testing may be required.
Cont# < 20 ppm	Work site located within Smelter Plume with area that is defined as less than 20 parts per million. Considered not contaminated.

APPENDIX F
Bus Pad Exhibit

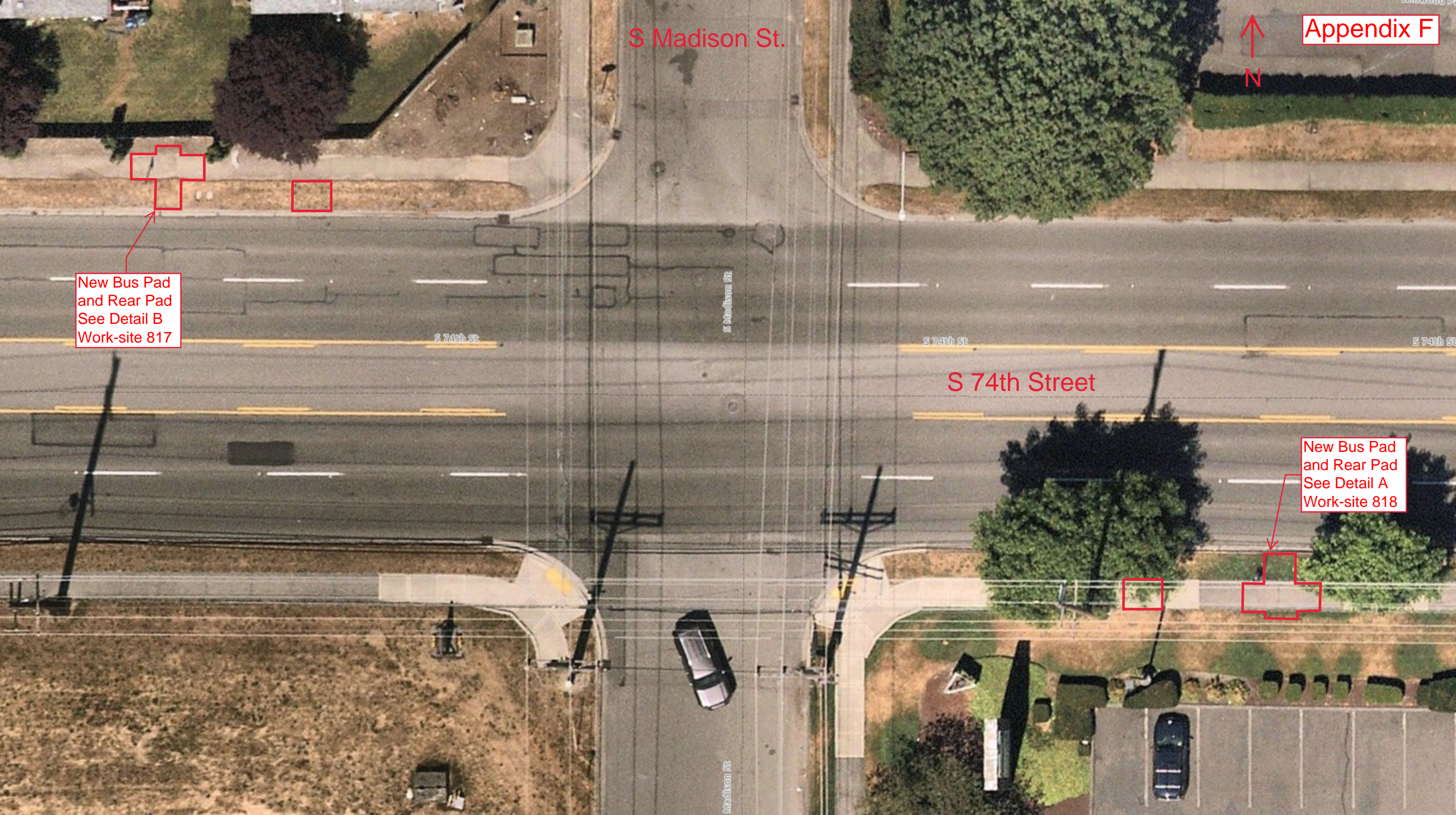


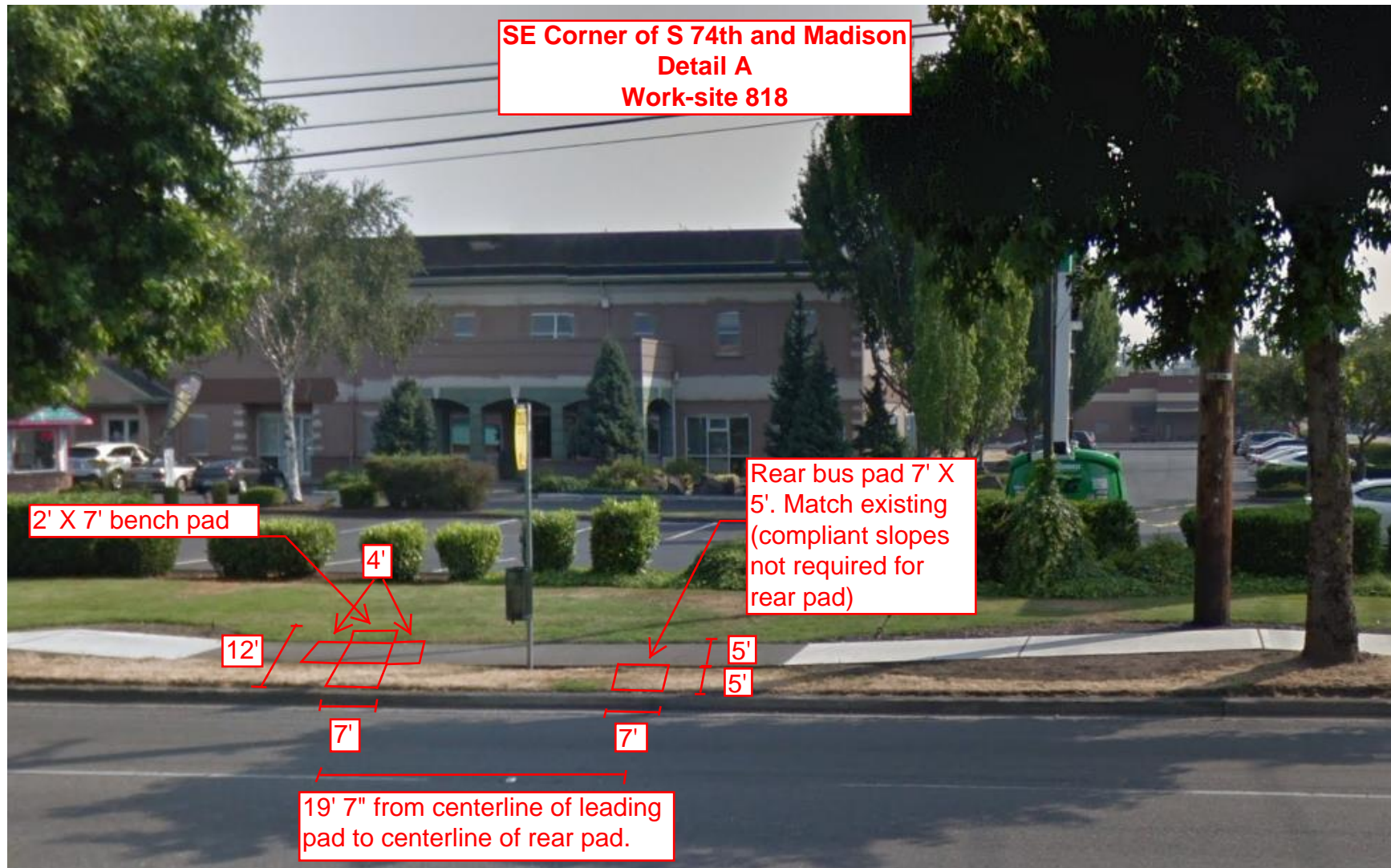
S Madison St.

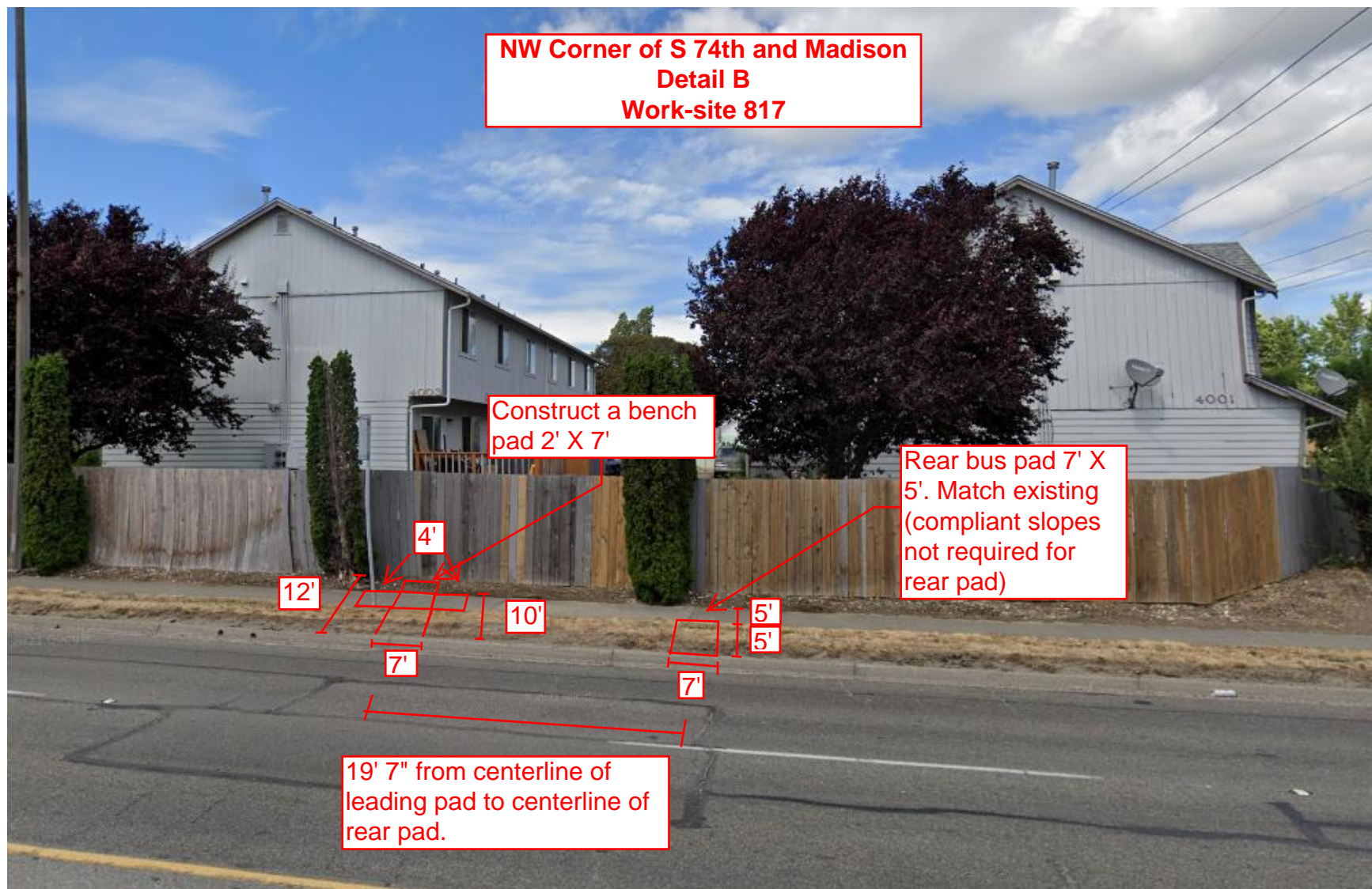
S 74th Street

New Bus Pad
and Rear Pad
See Detail B
Work-site 817

New Bus Pad
and Rear Pad
See Detail A
Work-site 818







PART III

CITY OF TACOMA

EQUITY IN CONTRACTING PROGRAM

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 253-591-5075 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

Minority Business
Enterprise Requirement

13%

Women Business
Enterprise Requirement

9%

Small Business Enterprise
Requirement

21%

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/EIC: PWK-00434-37

Date of Record: 09/21/2023

Project Spec#:PW23-0203F (Rebid of PW23-0024F)

Project Title: Streets Initiative Package #37

*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.



City of Tacoma
Community & Economic Development
747 Market Street, Rm 900
Tacoma WA 98402

CITY OF TACOMA EQUITY IN CONTRACTING (EIC) PROGRAM

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](#)). 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 policy, the City of Tacoma is utilizing a cloud-based software system:

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.

The system is monitored/audited by EIC staff to ensure contract compliance, proactively identify potential issues, and track contract progress.

***EIC STAFF Contact Information**

For questions regarding Certifications, EIC Compliance and B2GNow support, contact EIC Staff:

- **Call EIC Office** at (253) 591-5630 or (253) 591-5826
- **Email EIC Office** at EICOffice@cityoftacoma.org



City of Tacoma
Community & Economic Development
Office of Equity in Contracting
747 Market Street, Rm 900
Tacoma WA 98402
253-591-5826
Email: EICOffice@cityoftacoma.org

EQUITY IN CONTRACTING UTILIZATION FORM

This form is to document **only** the contractors, subcontractors, material suppliers or other types of firms that 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 Businesses that are "Certified" by the Office of Minority and Women's Business Enterprises (OMWBE) www.omwbe.wa.gov as a MBE, WBE, and SBE to be known as "Certified Business".
- It is the Prime contractor's responsibility to verify the certification status of the business(s) intended to be utilized prior to the submittal deadline.

Bidder's Name: _____

Address: _____ City/State/Zip: _____

Spec. No. _____ Base Bid * \$ _____ Complete business names and phone numbers are required to verify your usage of Certified Businesses

a. Business Name and Certification Number(s)	b. MBE, WBE, or SBE (Write all that apply)	c. NAICS code(s)	d. Contractor Bid Amount (100%)	e. Material Supplier Bid Amount (20%)	f. Estimated MBE Usage Dollar Amount	g. Estimated WBE Usage Dollar Amount	h. Estimated SBE Usage Dollar Amount
i. MBE Utilization %	j. WBE Utilization %	k. SBE Utilization %					

By signing and submitting this form the bidder certifies that the OMWBE Certified Business(s) 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

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 deductibles selected by the City of Tacoma. Also, please refer to Items #10-12 below.
2. Column "a" – List all **Certified Business(s)** that you will be awarding a contract to if you are the successful bidder.
3. Column "b" – Identify if the **Certified Business(s)** is being utilized as an MBE, WBE, or SBE. (Businesses may count towards multiple requirements).
4. Column "c" – List the appropriate NAICS code(s) for the scope of work, services, or materials/supplies for each **Certified Business**.
5. Column "d" – The bid amount must be indicated for **all** listed **Certified Businesses** that you plan on doing business with. This quote is the price that you and the **Certified Businesses** have negotiated prior to bid opening.
6. Column "e" – The bid amount must be indicated for **all** listed **Certified Businesses** 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 percentage 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 = MBE usage as a percentage of the Base Bid.)
11. Block "j" – The percentage 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 = WBE usage as a percentage of the Base Bid.)

12. Block “k” – The percentage 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 = SBE usage as a percentage 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 253-591-5826 or email at EICOffice@cityoftacoma.org for additional information.

CHAPTER 1.07

EQUITY IN CONTRACTING

Sections:

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

1.07.010 Policy and purpose.

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

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.020 Definitions.

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

1.07.020.B

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

B. “Bidder” means an entity or individual who submits a Bid, Proposal or Quote. See also “Respondent.”

1.07.020.C

“Certified Business” means an entity that has been certified as a Disadvantaged Business Enterprise (“DBE”), Small Business Enterprise (“SBE”), Minority Business Enterprise (“MBE”), Women Business Enterprise (“WBE”), or Minority and Women’s Business Enterprise (“MWBE”) by the Washington State Office of Minority and Women’s Business Enterprise and meets the criteria set forth in Section 1.07.050 (2) of this chapter and has been approved as meeting that criteria by the Community and Economic Development Department Program Manager.

“City” means all Departments, Divisions and agencies of the City of Tacoma.

“Contract” means any type of legally binding agreement regardless of form or title that governs the terms and conditions for procurement of Public Works and Improvements and/or Non-Public Works and Improvements Supplies and Services. Contracts include the terms and conditions found in Specifications, Bidder or Respondent Submittals, and purchase orders issued by the City. A “Contract” as used in this chapter shall include an agreement between the City and a non-profit entity to perform construction-related services for Public Works. A “Contract” does not include: (1) awards made by the City with

federal/state grant or City general funds monies to a non-profit entity where the City offers assistance, guidance, or supervision on a project or program, and the recipient of the grant awards uses the grant moneys to provide services to the community; (2) sales transactions where the City sells its personal or real property; (3) a loan transaction where the City is acting as a debtor or a creditor; (4) lease, franchise; (5) agreements to use City real property (such as Licenses, Permits and Easements) and, (6) banking and other financial or investment services.

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

1.07.020.G

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

1.07.020.N

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

1.07.020.P

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

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

“Program Regulations” means the written regulations and procedures adopted pursuant to this chapter for procurement of Supplies, Services and Public Works.

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

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

1.07.020.Q

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

1.07.020.R

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

1.07.020.S

“Services” means non-Public Works and Improvements services and includes professional services, personal services, and purchased services, as such terms are defined in Section 1.06.251 TMC and/or the City’s Purchasing Policy Manual.

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

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

1.07.020.T

“Tacoma Public Utilities Service Area” means any ZIP code in which Tacoma Public Utilities maintains infrastructure or provides retail services.

1.07.020.W

“Waiver” means a discretionary decision by the City that the one or more requirements of this chapter will not be applied to a Contract or Contracts.

(Ord. 28766 Ex. A; passed June. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28274 Ex. A; passed Dec. 16, 2014: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.030 Discrimination prohibited.

A. No person that is engaged in the construction of public works for the City, engaged in the furnishing of laborers or craftspeople for public works of the City, or is engaged for compensation in the provision of non-public works and improvements supplies and/or services to the City, shall discriminate against any other person on the basis of race, religion, color, national origin or ancestry, sex, gender identity, sexual orientation, age, marital status, familial status, or the presence of any sensory, mental or physical disability, or “pregnancy outcomes” under TMC 1.29.040, in employment. Such discrimination includes the unfair treatment or denial of normal privileges to a person as manifested in employment upgrades, demotions, transfers, layoffs, termination, rates of pay, recruitment of employees, or advertisement for employment.

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

(Ord. 28859 Ex. A; passed Nov. 22, 2022: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.040 Program administration.

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

B. The Director is hereby authorized to adopt and to amend administrative regulations known as the Program Regulations, to properly implement and administer the provisions of this chapter. The Program Regulations shall be in conformance with City of Tacoma policies and state and federal laws and be designed to encourage achievement of the Goals set forth herein.

(Ord. 28766 Ex. A; passed June. 8, 2021: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.050 Approval as a Certified Business.

A. The Program Manager shall approve an entity as a Certified Business if all of the following criteria are satisfied:

1. The entity is certified as a DBE, SBE, MBE, WBE, or MWBE through the state of Washington’s Office of Minority & Women Business Enterprises; and
2. The entity can demonstrate that it also meets at least one of the following additional requirements:
 - a. The personal residence of the owner is located within the City of Tacoma or Tacoma Public Utilities Service Area, or
 - b. The entity’s business offices are located in any county of the Tacoma Public Utilities Service Area or any county adjacent to Pierce County, or
 - c. When the work is performed outside of Pierce County, the entity’s business offices may be located in an adjacent county in which the work is performed, or
 - d. Such additional information as the Program Manager or designee may require.
3. When another governmental entity has an equivalent business classification process, the City may enter into an interlocal cooperative agreement for mutual recognition of certifications.

B. Appeals.

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

(Ord. 28766 Ex. A; passed June. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28274 Ex. A; passed Dec. 16, 2014: Ord. 28147 Ex. A; passed May 7, 2013: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.060 Program requirements.

A. The program shall meet the following requirements:

1. Establishment of Annual Goals.

The Program Regulations adopted pursuant to this chapter shall state reasonably achievable cumulative annual goals for utilization of Certified Businesses in the provision of supplies, services, and public works procured by the City. Cumulative annual goals for the participation of Certified Businesses in City contracts shall be based on the number of qualified Certified Businesses operating within the Tacoma Public Utilities Service Area. The dollar value of all contracts awarded by the City to Certified Businesses in the procurement of supplies, services, and public works shall be counted toward the accomplishment of the applicable goal.

2. Application of Annual Goals to Contracts.

The Program Manager shall consult with City departments/divisions to establish department/division specific goals for competitively solicited contracts in accordance with this chapter and the Program Regulations.

B. Exceptions:

City departments/divisions or the Program Manager may request an exception to one or more of the requirements of this chapter as they apply to a particular Contract or Contracts. Exceptions may be granted in any one or more of the following circumstances:

1. Emergency:

The supplies, services and/or public works must be provided with such immediacy that neither the City nor the contractor can comply with the requirements herein. Such emergency will be deemed documented whenever a waiver of competitive solicitation for emergency situations is authorized under Tacoma Municipal Code Chapter 1.06.257 or as may be hereinafter amended.

2. Not Practicable:

The Contract involves special facilities or market conditions or specially tailored or performance criteria-based products, such that compliance with the requirements of this chapter would cause financial loss to the City or an interruption of vital services to the public. Such circumstances must be documented by the department/division awarding the Contract and approved by the senior financial manager or, for Contracts where the estimated cost is over \$500,000 (excluding sales tax), approved by the Board of Contracts and Awards ("C&A Board").

3. Sole source:

The supplies, services, and/or public works are available from only one feasible source, and subcontracting possibilities do not reasonably exist as documented by the department/division awarding the Contract and approved by the senior financial manager or, for Contracts where the estimated cost is over \$500,000 (excluding sales tax), approved by the C&A Board.

4. Government purchasing.

The Contract or Contracts are the result of a federal, state or inter-local government purchasing agreement and the use of such agreement in lieu of a bid solicitation conducted by the City is approved by the senior financial manager.

5. Lack of certified contractors:

An insufficient number of qualified contractors exist to create any utilization opportunities as documented by the Program Manager.

C. Waiver:

If, after receipt of Submittals but prior to Contract award, it is determined that due to unforeseen circumstances, waiver of goals is in the best interests of the City, the Director or Superintendent of the department/division awarding the Contract may request in writing that the City Manager or designee, on behalf of General Government, or the Director of Utilities or designee, on behalf of the Department of Public Utilities, approve such waiver..

Waivers may be granted only after determination by the City Manager or Director of Utilities that compliance with the requirements of this chapter would impose unwarranted economic burden on, or risk to, the City of Tacoma as compared with the degree to which the purposes and policies of this chapter would be furthered by requiring compliance.

(Ord. 28766 Ex. A; passed June. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.070 Evaluation of submittals.

A. All submittals for a supplies, services, or public works and improvements contracts shall be evaluated for attainment of the Certified Business requirements established for that contract in accordance with this chapter and the Program Regulations.

B. The determination of Certified Business usage and the calculation of Certified Business requirements per this section shall include the following considerations:

1. General.

The dollar value of the contract awarded by the City to a Certified Business in the procurement of supplies, services, or public works shall be counted toward achievement of the respective goal.

2. Supplies.

A public works and improvements contractor may receive credit toward attainment of the Certified Business requirement(s) for expenditures for supplies obtained from a Certified Business; provided such Certified Business assumes the actual and contractual responsibility for delivering the supplies with its resources. The contractor may also receive credit toward attainment of the Certified Business goal for the amount of the commission paid to a Certified Business resulting from a supplies contract with the City; provided the Certified Business performs a commercially useful function in the process.

3. Services and Public Works subcontracts.

Any bid by a Certified Business or a bidder that utilizes a Certified Business shall receive credit toward requirement attainment based on the percentage of Certified Business usage demonstrated in the bid. A contractor that utilizes a Certified Business as a subcontractor to provide services or public works shall receive a credit toward the contractor's attainment of the respective requirement based on the value of the subcontract with that firm.

4. Brokers, Fronts, or Similar Pass-Through Arrangements.

Certified Business acting as brokers, fronts, or similar pass-through arrangements (as such terms are defined in the Program Regulations) shall not count toward the requirement attainment unless the activity reflects normal industry practices and the broker performs a commercially useful function.

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

1. When contract award is based on price.

The lowest priced bid submitted by a responsive and responsible bidder will be reviewed to determine if it meets the requirement. Certified Businesses may self-count utilization on such bids if they will perform the work for the scope the requirement is based upon.

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

b. Any bidder that does not meet the stated Certified Business requirements shall be considered a non-responsible bidder unless a waiver of one or more of the requirements of this chapter is granted, in the City's sole discretion, pursuant to the criteria and processes in Tacoma Municipal Code 1.07.060.C.

2. When contract award is based on qualifications or other performance criteria in addition to price, solicitations shall utilize a scoring system that promotes participation by certified contractors. The Program Regulations may establish further requirements and procedures for final selection and contract award, including:

a. Evaluation of solicitations for Architectural and Engineering (A&E) services;

b. Evaluation and selection of submittals in response to requests for proposals; and

c. Selection of contractors from pre-qualified roster(s).

(Ord. 28766 Ex. A; passed Jun. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.080 Contract compliance.

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

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

B. Record Keeping.

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

(Ord. 28766 Ex. A; passed Jun. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.090 Program monitoring.

A. An Advisory Committee shall monitor compliance with all provisions of this chapter and the related Regulations. The Program Manager shall establish procedures to collect data and monitor the effect of the provisions of this chapter to assure, insofar as is practical, that the remedies set forth herein do not disproportionately favor one or more racial, gender, ethnic, or other protected groups, and that the remedies do not remain in effect beyond the point that they are required to eliminate the effects of under utilization in City contracting, unless such provisions are supported by a Disparity Study. The Program Manager shall have the authority to obtain from City departments/divisions, respondents, and contractors such relevant records, documents, and other information as is reasonably necessary to determine compliance.

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

(Ord. 28766 Ex. A; passed Jun. 8, 2021: Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.100 Enforcement.

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

(Ord. 28625 Ex. A; passed Nov. 5, 2019: Ord. 28141 Ex. A; passed Mar. 26, 2013: Ord. 28110 Ex. B; passed Dec. 4, 2012: Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.110 Remedies.

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

1. Forfeit the contractor's bid bond and/or performance bond;

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

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

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

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 28110 Ex. B; passed Dec. 4, 2012; Ord. 27867 Ex. A; passed Dec. 15, 2009)

1.07.120 Unlawful acts.

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

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

1.07.130 Severability.

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

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

1.07.140 Review of program.

This chapter shall be in effect through and until December 31, 2024, unless the City Council shall determine at an earlier date that the requirements of this chapter are no longer necessary. If this chapter has not been repealed by July 1, 2024, the City Council shall determine by the end of that year whether substantial effects or lack of opportunity of MWBEs and/or SBEs remain true in the relevant market and whether, and for how long, some or all of the requirements of this chapter should remain in effect.

(Ord. 28625 Ex. A; passed Nov. 5, 2019; Ord. 28274 Ex. A; passed Dec. 16, 2014; Ord. 28141 Ex. A; passed Mar. 26, 2013; Ord. 27867 Ex. A; passed Dec. 15, 2009)

PART IV

CITY OF TACOMA

**LOCAL EMPLOYMENT AND APPRENTICESHIP
TRAINING PROGRAM (LEAP) REGULATIONS FOR
PUBLIC WORKS CONTRACTS**



City of Tacoma
Community and Economic Development Department
LEAP Office
747 Market Street, Room 900
Tacoma, WA 98402
(253) 591-5590
leap@cityoftacoma.org

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. Based on the dollar amounts of projects, it requires Prime Contractors performing qualifying public works projects or service contracts ensure that a percentage of the total labor hours worked on the project are performed by LEAP-Qualified local employees and/or LEAP-Qualified apprentices approved by the Washington State Apprenticeship Council (SAC), residents of Tacoma, residents of surrounding Economically Distressed Areas, and/or TPU Service Areas (as outlined below). Compliance may be met through any combination LEAP-Qualified employees.

Prime Contractors may obtain further information by contacting the City of Tacoma's LEAP Coordinator, Deborah Trevorow, at (253) 591-5590 or 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.

***NOTE – for projects bid on or after October 10, 2023, compliance with workforce requirements and payrolls will be strictly enforced.**

LEAP PROGRAM REQUIREMENTS:

1. **LOCAL EMPLOYMENT Requirement:** The Prime 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 Requirement:** The Contractor is required to ensure that an additional 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(s). Subcontractor labor hours may be utilized towards achievement of the LEAP Requirements. Owner/Operator hours may be used for the Local Employment Requirement.

4. **FAILURE TO MEET LEAP UTILIZATION REQUIREMENT:** Contractors shall be assessed an amount for each hour that is not achieved. The amount per hour shall be based on the percent of the requirement that is met. All rounding shall be done down to the nearest whole percent. The amount per hour that shall be assessed is 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

LEAP DOCUMENT SUBMITTALS:**

1. *LEAP EMPLOYEE VERIFICATION FORM*: upon request, 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 LEAP Utilization Requirements with at least one piece of verifying documentation. The LEAP Office staff will respond regarding whether or not the employee is LEAP-Qualified.
2. *WEEKLY CERTIFIED PAYROLL*: In LCP Tracker: 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.
3. *DEPARTMENT OF LABOR & INDUSTRIES (L&I)*: The Prime must enter the project in the L&I project site under the 'Tacoma, City of' account 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



City of Tacoma
LEAP Office
747 Market Street, Room 900
Tacoma, WA 98402
(253) 591-5590 or leap@cityoftacoma.org

LEAP

Documents and Submittal Schedule

In the attached packet, you will find the LEAP documentation and forms that are required to be submitted by the Prime and Sub Contractors.

- ❑ **LEAP Abbreviated Program Requirements:** brief overview of LEAP Program requirements
- ❑ **LEAP Employee Verification Form:** to be submitted, upon request, for each employee who may be a LEAP-qualified employee
- ❑ **Tacoma Public Utilities Service Area Map and List, Economically Distressed ZIP Codes Map and List:** 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.
- ❑ **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 leap@cityoftacoma.org

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.

(Ord. 28520 Ex. A; passed Jul. 17, 2018; Ord. 28147 Ex. B; passed May 7, 2013; Ord. 28110 Ex. C; passed Dec. 4, 2012; Ord. 27815 Ex. A; passed Jun. 30, 2009; Ord. 27368 § 1; passed Jun. 21, 2005; Ord. 26698 § 1; passed Sept. 12, 2000; Ord. 26301 § 1; passed Oct. 6, 1998)

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:

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

When determining the percent of goal that is met, all rounding shall be down to the nearest whole percent. No penalty shall be waived by the City unless it is determined by the 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. 26698 § 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)

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:

- ***Provide information to the LEAP Office (see LEAP contact information below).*** Provide the name and email address of the person(s) who will oversee LEAP utilization and payrolls.
- ***LEAP Employee Verification.*** Proof of residency may be requested for employees who may be LEAP-Qualified and may be able to help meet the LEAP Requirements.
- ***All certified payrolls.*** Prime contractor is responsible for ensuring their, and their subcontractors', payrolls are submitted via LCP Tracker. By submitting payrolls in LCP Tracker before the Labor & Industry's website, you can reduce data entry.

The City of Tacoma's LEAP office enforces varying workforce utilization requirements on City projects based on certain monetary thresholds and project locations.

Local Employment Utilization Requirement - the Prime Contractor performing a qualifying public work or improvement must ensure that 15 percent of the total labor hours worked on the project are performed by journey or apprentice level craft workers who are residents of the City of Tacoma or Economically Distressed Zip Codes.

Apprenticeship Utilization Requirement – the Prime Contractor performing a qualifying public work or improvement must ensure that 15 percent of the total labor hours worked on the project are performed by apprentices who are residents of the Tacoma Public Utilities Service Area.

***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 subject to the:

- 1. 15% Local Employment Utilization Requirement**
- 2. 15% Apprentice Utilization Requirement**

LEAP staff can assist contractors in identifying 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) 591-5590. The LEAP Office is located in the Tacoma Municipal Building, 747 Market Street, Room 900, Tacoma, WA 98402. www.cityoftacoma.org/leap



City of Tacoma LEAP Office
747 Market Street, Room 900
Tacoma, WA 98402
(253) 591-5590 or leap@cityoftacoma.org
www.cityoftacoma.org/leap

LEAP EMPLOYEE VERIFICATION FORM

Submit upon request from LEAP Office

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*): _____

Age: _____ 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 (journey level or certified apprentice) within the geographic boundaries of the City of Tacoma

_____ b. Resident (journey level or certified apprentice) within Economically Distressed ZIP Codes of the Tacoma Public Utilities Service Area

_____ c. WA State Approved Apprentice living in the Tacoma Public Utilities Service Area (Only valid for projects over \$1,000,000)

_____ 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 one or more of the following document(s) showing the address of residence as proof of local (Tacoma) and/or Economically Distressed Area and/or TPU Service Areas residency. For youth, see first line and for veteran status, see second line.

.....

- _____ 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)

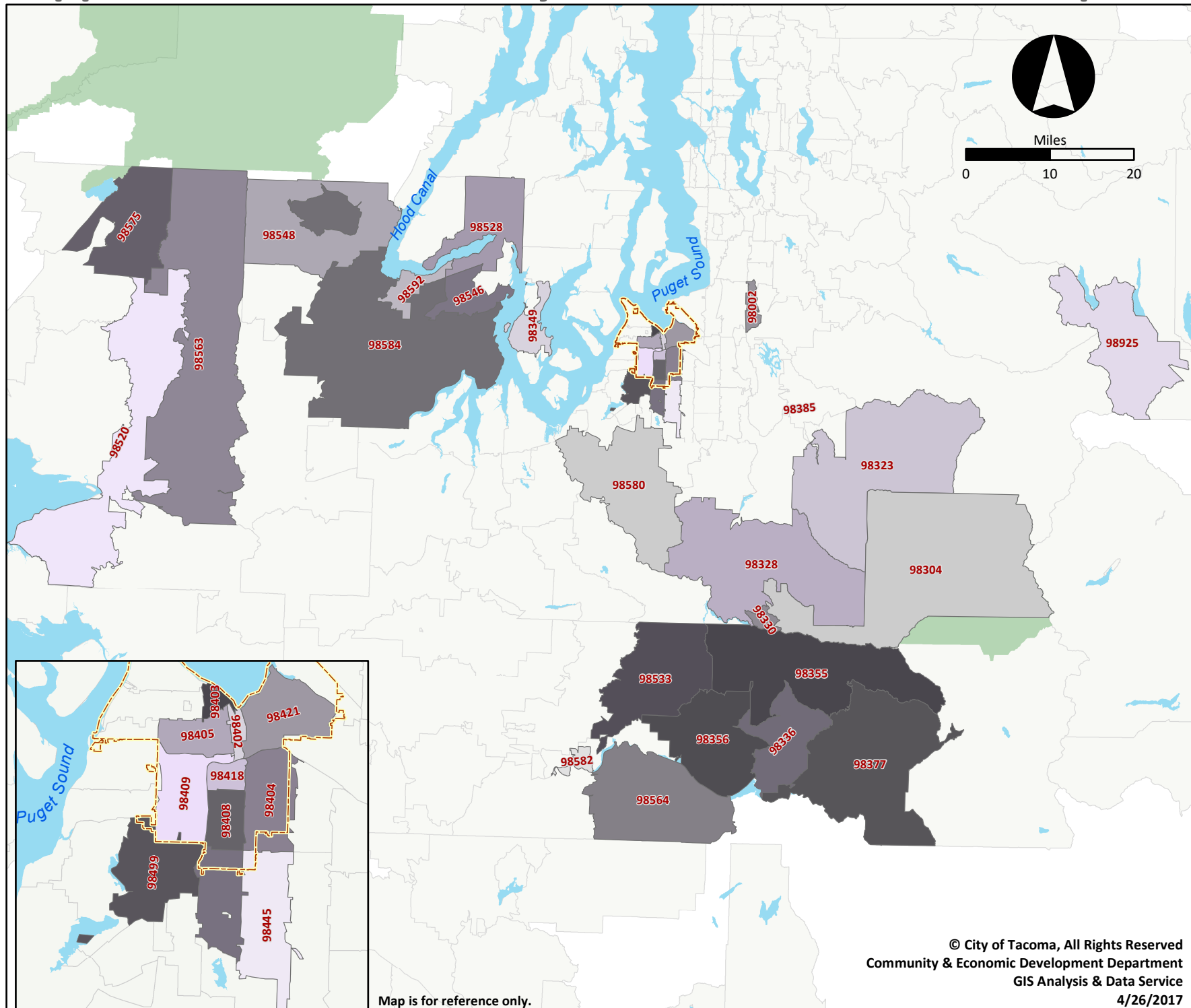
*Any of the above must have a complete physical address verified by the www.govme.org website.

No PO Boxes

Contractor Representative: _____ Date: _____

Title: _____

Appendix C: Economically Distressed ZIP Codes Map



City Limits

98002

98304

98323

08278

08330

Abstract

58556

58549

98355

98356

98377

98385

98520

98528

98533

08546

22512

See 10

58503

98564

98575

98580

98582

98584

98592

98925

08402

08402

58404

98405

98408

98409

98418

98421

98444

98445

98/99

100%

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Community & Economic Development Department
GIS Analysis & Data Service
4/26/2017

Map is for reference only.

LOCAL EMPLOYEE REQUIREMENT ONLY

City of Tacoma
(Journeyman AND Apprentice)

98402	98421
98403	98422
98404 (some)	98424
98405	98444
98406	98445
98407	98465 (some)
98408	98466 (some)
98409	98467 (some)
98418	

Check addresses here:

[https://tacoma.maps.arcgis.com/apps/webappviewer/index.html?
id=38107f6b096a4b8280c0d9b8a05bc7eb](https://tacoma.maps.arcgis.com/apps/webappviewer/index.html?id=38107f6b096a4b8280c0d9b8a05bc7eb)

LOCAL EMPLOYEE REQUIREMENT ONLY

Economically Distressed Areas

(Journeyman AND Apprentice)

Zip Code	200% Pov	Unemployed	25+ College	Area
98002	Y		Y	Auburn
98304	Y		Y	Ashford/Rainier
98323	Y	Y	Y	Carbonado
98328	Y		Y	Eatonville
98330	Y		Y	Elbe
98336	Y		Y	Glenoma
98349	Y	Y		Lakebay
98355		Y	Y	Mineral
98356	Y	Y	Y	Morton
98377	Y	Y	Y	Randle
98385		Y	Y	South Prairie
98402	Y	Y		Downtown
98403	Y	Y		Stadium/St. Helens
98404	Y	Y		Eastside
98405	Y	Y		Hilltop/Central
98408	Y		Y	South End
98409	Y	Y		South Tacoma
98418	Y		Y	Lincoln/South End
98421	Y	Y	Y	Port
98439	Y	Y		McChord AFB
98444	Y	Y		Parkland
98445	Y		Y	Midland
98499	Y	Y		Lakewood
98520	Y	Y	Y	Aberdeen
98528	Y		Y	Belfair
98533		Y	Y	Cinebar
98546	Y	Y	Y	Grapeview
98548	Y	Y	Y	Hoodspport
98563	Y	Y	Y	Montesano
98564	Y	Y	Y	Mossyrock
98575	Y		Y	Quinault
98580	Y		Y	Roy
98582	Y		Y	Salkum
98584	Y		Y	Shelton
98591	Y		Y	Toledo
98592		Y	Y	Union
98925	Y		Y	Easton

ONLY FOR APPRENTICE UTILIZATION REQUIREMENT

Tacoma Public Utilities Infrastructure and Service Area (Apprentices)

98001	Auburn	0.00%
98002	Auburn	0.00%
98003	Federal Way	0.00%
98010	Black Diamond	0.00%
98022	Enumclaw	0.00%
98023	Federal Way	0.00%
98030	Kent	0.00%
98032	Kent	0.00%
98038	Maple Valley	0.00%
98042	Kent	0.00%
98045	North Bend	0.00%
98051	Ravensdale	0.00%
98070	Vashon	0.00%
98092	Auburn	0.00%
98198	Seattle	0.00%
98304	Ashford	0.00%
98321	Buckley	0.27%
98323	Carbonado	0.05%
98327	DuPont	0.00%
98328	Eatonville	2.92%
98329	Gig Harbor	0.24%
98330	Elbe	0.00%
98332	Gig Harbor	0.00%
98333	Fox Island	0.00%
98335	Gig Harbor	0.05%
98336	Glenoma	0.00%
98338	Graham	0.79%
98349	Lakebay	0.06%
98354	Milton	0.01%
98355	Mineral	0.00%

98356	Morton	0.17%
98360	Orting	0.54%
98371	Puyallup	0.12%
98372	Puyallup	1.33%
98373	Puyallup	1.42%
98374	Puyallup	0.15%
98375	Puyallup	0.29%
98377	Randle	0.00%
98385	South Prairie	0.00%
98387	Spanaway	0.68%
98388	Spanaway	0.00%
98390	Sumner	0.12%
98391	Bonney	1.83%
98402	Tacoma	0.46%
98403	Tacoma	3.31%
98404	Tacoma	10.15%
98405	Tacoma	4.97%
98406	Tacoma	3.51%
98407	Tacoma	4.38%
98408	Tacoma	12.58%
98409	Tacoma	8.88%
98416	UPS	0.00%
98418	Tacoma	1.98%
98421	Tacoma	0.00%
98422	Tacoma	0.67%
98424	Tacoma	0.98%
98430	Camp Murray	0.00%
98433	Tacoma	0.00%
98438	McChord	0.00%
98439	Lakewood	0.00%

98443	Tacoma	0.00%
98444	Tacoma	7.20%
98445	Tacoma	2.09%
98446	Tacoma	0.17%
98447	PLU	0.00%
98465	Tacoma	0.44%
98466	Tacoma	0.06%
98467	University Place	0.09%
98498	Lakewood	0.05%
98499	Lakewood	0.26%
98520	Aberdeen	0.00%
98524	Allyn	0.97%
98528	Belfair	0.31%
98533	Cinebar	0.00%
98546	Grapeview	0.00%
98548	Hoodspoint	0.00%
98555	Lilliwaup	0.00%
98563	Montesano	0.21%
98564	Mossyrock	0.00%
98575	Quinalt	0.20%
98580	Roy	2.02%
98582	Salkum	0.00%
98584	Shelton	10.31%
98585	Silver Creek	0.00%
98591	Toledo	1.93%
98592	Union	0.00%
98597	Yelm	0.00%
98925	Easton	0.00%

PART V

STATE PREVAILING WAGE RATES

AND

INSURANCE 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.



CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

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

1. GENERAL REQUIREMENTS

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

- 1.1. Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the City of Tacoma.
- 1.2. Contractor shall keep in force during the entire term of the Contract, at no expense to the City of Tacoma, the insurance coverage and limits of liability listed below and for Thirty (30) calendar days after completion of all work required by the Contract, unless otherwise provided herein.
- 1.3. Liability insurance policies, except for Professional Liability and Workers' Compensation, shall:
 - 1.3.1. Name the City of Tacoma and its officers, elected officials, employees, and agents as **additional insured**
 - 1.3.2. Be considered primary and non-contributory for all claims with any insurance or self-insurance or limits of liability maintained by the City of Tacoma
 - 1.3.3. Contain a "Waiver of Subrogation" clause in favor of City of Tacoma
 - 1.3.4. Include a "Separation of Insureds" clause that applies coverage separately to each insured and additional insured
 - 1.3.5. Name the "City of Tacoma" on certificates of insurance and endorsements and not a specific person or department
 - 1.3.6. Be for both ongoing and completed operations using Insurance Services Office (ISO) form CG 20 10 04 13 and CG 20 37 04 13 or the equivalent
 - 1.3.7. Be satisfied by a single primary limit or by a combination of a primary policy and a separate excess umbrella
- 1.4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements below. Verification of coverage shall include:
 - 1.4.1. An ACORD certificate or equivalent
 - 1.4.2. Copies of requested endorsements
- 1.5. Contractor shall provide to City of Tacoma Procurement & Payable Division, prior to the execution of the Contract, Certificate(s) of Insurance and endorsements from the insurer certifying the coverage of all insurance required herein. Contract or Permit number and the City of Tacoma Department must be shown on the Certificate of Insurance.



CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

- 1.6. A renewal Certificate of Insurance shall be provided electronically prior to coverage expiration via email sent annually to coi@cityoftacoma.org.
- 1.7. Contractor shall send a notice of cancellation or non-renewal of this required insurance within Thirty (30) calendar days to coi@cityoftacoma.org.
- 1.8. "Claims-Made" coverages, except for pollution coverage, shall be maintained for a minimum of three years following the expiration or earlier termination of the Contract. Pollution coverage shall be maintained for six years following the expiration of the Contract. The retroactive date shall be prior to or coincident with the effective date of the Contract.
- 1.9. Each insurance policy must be written by companies licensed or authorized (or issued as surplus line by Washington surplus line broker) in the State of Washington pursuant to RCW 48 with an (A-) VII or higher in the A.M. Best key rating guide.
- 1.10. Contractor shall not allow any insurance to be cancelled, voided, suspended, or reduced in coverage/limits, or lapse during any term of this Contract. Otherwise, it shall constitute a material breach of the Contract.
- 1.11. Contractor shall be responsible for the payment of all premiums, deductibles and self-insured retentions, and shall indemnify and hold the City of Tacoma harmless to the extent such a deductible or self-insured retained limit may apply to the City of Tacoma as an additional insured. Any deductible or self-insured retained limits in excess of Twenty Five Thousand Dollars (\$25,000) must be disclosed and approved by City of Tacoma Risk Manager and shown on the Certificate of Insurance.
- 1.12. City of Tacoma reserves the right to review insurance requirements during any term of the Contract and to require that Contractor make reasonable adjustments when the scope of services changes.
- 1.13. All costs for insurance are included in the initial Contract and no additional payment will be made by City of Tacoma to Contractor.
- 1.14. Insurance coverages specified in this Contract are not intended and will not be interpreted to limit the responsibility or liability of Contractor or Subcontractor(s).
- 1.15. Failure by City of Tacoma to identify a deficiency in the insurance documentation or to verify coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- 1.16. If Contractor is a government agency or self-insured for any of the above insurance requirements, Contractor shall be liable for any self-insured retention or deductible portion of any claim for which insurance is required. A certification of self-insurance shall be attached and incorporated by reference and shall constitute compliance with this Section.



CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

2. SUBCONTRACTORS

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

3. REQUIRED INSURANCE AND LIMITS

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

3.1 Commercial General Liability Insurance

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

3.2 Commercial (Business) Automobile Liability Insurance

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

3.3 Workers' Compensation

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

3.4 Employers' Liability Insurance

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

3.5 Excess or Umbrella Liability Insurance

Contractor shall provide Excess or Umbrella Liability Insurance with limits not less than 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.



CITY OF TACOMA INSURANCE REQUIREMENTS FOR CONTRACTS

3.6 Pollution Liability Insurance

Contractor shall maintain Pollution Liability or Environmental Liability Insurance with limits not less than One Million Dollars (\$1,000,000) each occurrence and Two Million Dollars (\$2,000,000) in the aggregate. Coverage shall include investigation and defense costs for bodily injury and property damage, loss of use of damaged or destroyed property, Natural Resource Damage, and Hazardous Substance Removal. Such coverage shall provide both on-site and off-site cleanup costs, 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.

3.7 Installation Floater Insurance

Contractor shall maintain during the term of the Contract, at its own expense, Installation Floater Insurance covering Contractor's labor, materials, and equipment to be used for completion of the work performed under this Contract against all risks of direct physical loss, excluding earthquake and flood, for an amount equal to the full amount of the Contract improvements.

3.8 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.