

CITY OF TACOMA  
DEPARTMENT OF PUBLIC UTILITIES  
TACOMA WATER

SPECIFICATION NO. PW15-0712F

**CONSTRUCTING WATER MAINS**

in accordance with approved plans for

**WATER MAIN REPLACEMENT PROJECT NO. MRP 2017-55**

**E. 64 ST., BETWEEN PACIFIC AVE. AND MCKINLEY AVE.**



7.8.2019

Troy Saghafi, P.E.  
Tacoma Water  
Tacoma Public Utilities  
MRP 2017-55

**END OF SECTION  
CITY OF TACOMA  
TACOMA PUBLIC UTILITIES  
TACOMA WATER**

**SPECIAL PROVISIONS  
FOR  
SPECIFICATION PW15-0712F**

**WATER MAIN REPLACEMENT PROJECT MRP 2017-55**

**E. 64<sup>th</sup> Street between Pacific Avenue and McKinley Avenue  
Tacoma, WA**

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## **INTRODUCTION**

**April 1, 2016**

The following special provisions shall be used in conjunction with the applicable sections of the 2016 M41-10 Washington State Department of Transportation Standard Specifications for Road, Bridge and Municipal Construction and the American Water Works Association (AWWA) Standard Specifications. State Standard Specifications are available through WSDOT, by calling (360) 705-7430, or may be downloaded, free of charge, from this location on the WSDOT home page:

[www.wsdot.wa.gov/Publications/Manuals/M41-10.htm](http://www.wsdot.wa.gov/Publications/Manuals/M41-10.htm)

Pipe and pipe appurtenances shall be installed according to "A Guide for the Installation of Ductile Iron Pipe" published by the Ductile Iron Pipe Research Association, except as modified by these specifications or the Engineer.

For further information relating to these Specifications please contact:

Prior to Contract Award: Alex Clark, Senior Buyer, TPU Purchasing office, 253-502-81431.

After Contract Award: Greg Armstrong, Tacoma Water Construction Operations Manager, (253) 502-8742.

Also visit the City of Tacoma, Department of Finance, Purchasing Division's website: [www.TacomaPurchasing.org](http://www.TacomaPurchasing.org)

## **DESCRIPTION OF WORK**

**(\*\*\*\*\*)**

The work to be performed under these Specifications consists of furnishing all labor, tools and materials for constructing approximately 3,887 lineal feet of 18-inch, 16-inch, 8-inch, 6-inch and 4-inch water mains together with all necessary valves, specials, etc., all in accordance with these specifications and approved plans. The work is located in:

E 64<sup>th</sup> Street, Pacific Ave. to McKinley Ave.

All located in the SW1/4 - Sec 21 – T.20N – R.3E, SE1/4- Sec 21- T.20N- R.3E – WM, Tacoma, Washington.

This project is in conjunction with City of Tacoma Department of Public Works. All materials required and not listed herein, to be furnished by Tacoma Water, shall be furnished by the Contractor. The modifications to the water distribution system shown on the Water Division Plans will be constructed as a part of this contract. These Special Provisions are applicable to water distribution work only and supersede any conflicting provisions that may appear elsewhere in the contract or Standard Specifications in regard to the water distribution main facility scope of work. Proposal items within the Tacoma Water section of the proposal are applicable to the water main scope of work only and shall not be construed to apply to other subsections of the Contract.

## END OF SECTION

### DEFINITIONS AND TERMS

#### 1-01.2 Abbreviations

##### 1-01.2(1) Associations and Miscellaneous

*This section is supplemented with the following:*

DIPRA	Ductile Iron Pipe Research Association
EWO	Extra Work Order
LOI	Letter of Instruction
MRP	Main Replacement Project/Program
NSF	National Sanitation Foundation
RFI	Request for Information
TPU	Tacoma Public Utilities
WDP	Water Division Project

#### 1-01.3 Definitions

*This section is supplemented with the following:*

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

All references to “State Materials Laboratory” shall be revised to read “Contracting Agency designated location”.

All references in the Standard Specifications to the term “Contract Bond” shall be revised to read “Performance Bond.”

All references in the Standard Specifications to the term “Proposal Bond” shall be revised to read “Bid Bond.”

The venue of all causes of action arising from the advertisement, award, execution, and performance of the contract shall be in the Superior Court of the County where the Contracting Agency’s headquarters are located.

##### **Contract Documents**

See definition for “Contract”.

##### **Contract Time**

The period of time established by the terms and conditions of the contract within which the work must be physically completed.

##### **Dates**

##### **Bid Opening Date**

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

**Award Date**

The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive bidder for the work.

**Contract Execution Date**

The date the Contracting Agency officially binds the agency to the contract.

**Notice to Proceed Date**

The date stated in the Notice to proceed on which the contract time begins.

**Substantial Completion Date**

The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, and only minor incidental work, replacement of temporary substitute facilities, or correction or repair remains for the physical completion of the total contract.

**Physical Completion Date**

The day all of the work is physically completed on the project. All documentation required by the contract and required by law does not necessarily need to be furnished by the Contractor by this date.

**Completion Date**

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

**Final Acceptance Date**

The date on which the Contracting Agency accepts the work as complete.

**Contracting Agency**

Agency of Government that is responsible for the execution and administration of the contract to include: "City", "City of Tacoma", "Tacoma Public Utilities" and "Tacoma Water".

**Notice to Proceed**

The written notice from the Contracting Agency or Engineer to the Contractor authorizing and directing the Contractor to proceed with the work and establishing the date on which the contract time begins.

**Traffic**

Both vehicular and non-vehicular traffic, such as pedestrian, bicycle, and wheelchair traffic.

**END OF SECTION**

## **1-03 AWARD AND EXECUTION OF CONTRACT**

### **1-03.3 Execution of Contract**

*This section is supplemented with the following:*

A Pre-construction meeting will be scheduled by Greg Armstrong, Tacoma Water Construction Operations Manager following review by TPU Legal, Finance Department, Small Business Enterprise Office, Contract and Awards Board, and award of contract by the Tacoma Public Utility Board. The meeting agenda will cover contract compliance, safety and construction. The Contractor is encouraged to have representatives from his/her sub-contractors and their on-site forepersons in attendance. Contact Greg Armstrong at (253) 502-8742 concerning questions.

In addition to the contract, performance bond, insurance and other documentation that is required during the contract execution process the Contractor shall submit the following construction documents prior to, or at, the preconstruction meeting.

- \_\_\_\_ 1. Approved Traffic Control Plan
- \_\_\_\_ 2. Materials Submittals
- \_\_\_\_ 3. Storage & Stockpile Site
- \_\_\_\_ 4. Emergency Contact List
- \_\_\_\_ 5. Unsuitable Disposal Site
- \_\_\_\_ 6. Construction Schedule (updated bi-weekly)

### **1-03.5 Failure to Execute Contract**

*The first sentence is revised to read:*

Failure to return the insurance certification and bonds with the signed contract as required in Section 1-03.3, or failure to provide Small Business Enterprise (SBE) information if required in the contract, or failure or refusal to sign the contract shall result in forfeiture of the bid bond or deposit of this bidder.

**END OF SECTION**

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

### **1-04.2 Coordination of Contract Documents, Plans, Special Provisions Specifications and Addenda**

*Second paragraph is revised to read:*

Any inconsistency in the parts of the contract regarding the water portion shall be resolved by the following order of precedence (e.g. 1 presiding over 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11; 2 presiding over 3, 4, 5, 6, 7, 8, 9, 10, and 11; and so forth):

1. Jurisdictional Right of Way Permits
2. Addenda
3. Proposal Form
4. Special Provisions
5. Contract Plans/Drawings
6. Standard Plans/Drawings
7. AWWA Standards
8. DIPRA Standards
9. General Provisions
10. Amendments to the Standard Specifications
11. Standard Specifications

### **1-04.3 Requests for Information**

*This section is added with the following:*

Requests for Information (RFI) from the Contractor to Tacoma Water may be sent via facsimile directly to Greg Armstrong, Tacoma Water Construction Operations Manager, fax number (253) 502-8694 or electronically to: [garmstro@cityoftacoma.org](mailto:garmstro@cityoftacoma.org).

Allow a minimum of five (5) working days from time of receipt by Tacoma Water for a response.

### **1-04.4 Changes**

#### **1-04.4(1) Minor Changes**

*This section is revised in its entirety with the following:*

Minor changes, additional work, or extra work order (EWO) may be initiated by the Contractor or Tacoma Water. At the discretion of Tacoma Water, this procedure for Minor Changes, Additional Work, or Extra Work may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes. EWO's not covered by contract items will be paid for on a force account basis in accordance with Section 1-09.6 of the Standard Specifications or as a Letter of Instruction.

The Contractor must discuss any "extra work" that can be reasonably foreseen with the Tacoma Water Construction Inspector and/or Engineer prior to doing the work. The Contractor must submit the field copy extra work orders (EWO) to the Inspector and/or Engineer no later than the end of the next working day after the extra work was performed for review and recording. Formal EWO's may be sent via facsimile directly to Greg Armstrong, Tacoma Water Construction Operations Manager, fax number (253)

502-8694 or electronically to: [garmstro@cityoftacoma.org](mailto:garmstro@cityoftacoma.org). The Formal EWO must be sent within five (5) working days of the date the work was performed.

The Formal EWO shall have as a minimum the following:

- Name of Contactor
- Date of Work
- Project Number
- Brief Description of Work
- Approximate location of work
- Contractor's Representative
- Name(s), Job Classification (s), Hour(s) on the extra work, Rate(s) of Pay
- Equipment(s) Used, Hour(s) on the extra work, Equipment Rental Rate(s)
- Extra material used with a copy of vendor's invoice
- Equipment Rental copies
- Itemized cost showing mark up(s)

Do not include sales tax in the computation of the EWO as it will be calculated through the pay estimate.

Failure to submit the formal extra work orders during this time frame will result in non-payment for extra work. Field EWO's given to the Inspector does not constitute approval, only verification of documentation. Extra work orders will comply with the requirements of section 1-09.6.

#### **1-04.7 Differing Site Conditions (Changed Conditions)**

*This section is supplemented with the following:*

By entering into the contract, the Contractor represents that he/she has inspected in detail the project site and has become familiar with all the physical and local conditions affecting the project and/or the project site. Any information provided by the City to the Contractor relating to existing conditions on, under, or to the project and/or site including but not limited to information pertaining to subsurface exploration and conditions, borings, test pits, tunnels and other conditions affecting the project site, represents only the opinion of the City as to the location, character, or quantity of such conditions shall draw his/her own conclusions from such information and make sure tests, reviews and analyses as he/she deems necessary to understand such conditions and to prepare the Proposal.

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

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

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

## END OF SECTION

### 1-05 CONTROL OF WORK

#### 1-05.3 Plans and Drawings

*This section is supplemented with the following:*

Bidders can request one (1) full-size plan set by calling **Todd Honey at (253)-502-8295**. The requested plan set must be picked up by the bidder at Tacoma Water's permit counter.

#### 1-05.5 Submittals

*This section is added with the following:*

Submittals must be approved by Tacoma Water and may be forwarded directly to **Todd Honey, Tacoma Water Utility Service Specialist, electronically at [thoney@cityoftacoma.org](mailto:thoney@cityoftacoma.org), or mailed to 3628 S. 35<sup>th</sup> St., Tacoma, WA 98409-3192. (253) 502-8295.**

Before any material is shipped or installed, the Contractor shall furnish to the Engineer full details, shop drawings, dimensions, catalog cuts, schematic (elementary) diagrams, and other descriptive matter as required to fully describe the equipment proposed to be included in this contract. The names, addresses and phone numbers for the representative of each piece of equipment shall also be included.

Should any item which deviates from these Specifications be included, the deviation shall be clearly indicated and explained at the time of submittal.

The Contractor shall provide electronic copies of submittal information. Submittals shall be complete, neat, orderly, and indexed. The Contractor shall check submittals for number of copies, adequate identification, correctness, and compliance with the Plans and Specifications, and shall initial all copies. A copy of this Specification shall be included with the submittals. The Contractor shall revise and/or resubmit all submittal information until it is acceptable to the Engineer. After review, one set of submittals will be returned to the Contractor.

Review of submittal information by the Engineer shall not relieve the Contractor of responsibility for meeting the requirements of the Plans and Specifications, or for errors and omissions in submittals. Reviews by the City do not constitute an undertaking on the part of the City to assure or determine compliance with the Plans and Specifications.

The following is a summary of submittal requirements (Table 1). This summary is not inclusive of all submittal requirements. The Contractor shall review each individual



section in the applicable provisions or specifications, as noted below, for specific requirements.

Section	Description
1-07	SPCC Plan
1-08	Progress Schedule
1-10	Traffic Control Plan
5-04	Hot Mix Asphalt
5-05	Cement Concrete Pavement
7-04	Storm Repair
7-09	Pipe Submittals
7-09	Ductile Iron Fitting Submittals
7-09	Trench Compaction
7-09	Temporary Blow-Offs
7-09	Permanent Blow-Offs
7-09	Transition Couplings
7-09	Asbestos Cement Pipe Removal and Disposal Plan
7-12	Butterfly Valves
7-12	Gate Valves
7-14	Fire Hydrants
7-17	Sanitary Repair
7-18	Side Sewer Repair
8-01	Street Sweeping
8-01	Storm Water Pollution Prevention Plan (SWPPP)
8-01	Dewatering Plan
8-01	Catch Basin Inserts
8-12	Chain Link Fencing
8-22	Traffic Lane Marking
9-03	Crushed Surfacing Top Course
9-03	Sand Bedding
9-30.2(6)	M.J. Restraining Gland

**Table 1**

#### **1-05.11 Final Inspection**

*This section is supplemented with the following:*

The Tacoma Water Construction Inspector will process a final inspection document (punch list) of outstanding items and forward to contractor. Final payment will not be processed until all items from punch list are complete to the satisfaction of the engineer and/or inspector.

### **1-05.13(1) Emergency Contact List**

*This section is supplemented with the following:*

#### **Agencies and telephone numbers:**

<b>Tacoma Water Emergency</b>	<b>253-502-8344</b>
Troy Saghafi Tacoma Water Project Engineer	253-502-8746
Greg Armstrong Tacoma Water Construction Operations Manager	253-502-8742
Todd Honey Tacoma Water Utilities Serv. Spec.	253-502-8295
Tacoma Water Distribution LID/Engineering fax	253-502-8694
Jason Turner Environmental Services Project Engineer	253-502-2119
Utilities Underground Location Center	800-424-5555
Washington State Dept. of Labor and Industries	253-596-3895
Trent Hill Tacoma Water Safety Office	253-502-8821
Pierce Transit	253-581-8021
Puget Sound Energy-Gas	888-225-5773
Century Link Communications	800-573-1311
Tacoma Traffic Engineering	253-591-5500
Tacoma Fire Dept. (non-emergency)	253-591-5733
Tacoma Police Dept. (non-emergency)	253-591-5950
LESA Communications Center (opt. #1)	253-798-4721
Tacoma Public Schools Transportation Office	253-571-1893
Tacoma Public Works Solid Waste	253-591-5544
Tacoma Public Works Engineering Division	253-591-5500
Tacoma Public Works Streets and Grounds	253-591-5495

#### **END OF SECTION**

### **1-06 CONTROL OF MATERIAL**

#### **1-06.4 Handling and Storing Materials**

*This section is supplemented with the following:*

The Contractor shall obtain written approval for the storage site from property owner and provide a copy to Greg Armstrong, Tacoma Water's Construction Supervisor prior to start of construction. No gravel, topsoil, mulch, or any other item used in the construction of this project shall be stockpiled on existing or newly constructed streets or sidewalks. All costs to provide a stockpile site shall be incidental to the cost of the contract.

#### **END OF SECTION**

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

#### **1-07.6 Permits and Licenses**

*This section is supplemented with the following:*

Before beginning water main work, the Contractor shall obtain and comply with all provisions of the latest revision to Tacoma Municipal Code 2.09. Permit fees in accordance with 2.09.120, Table IX, Special and Miscellaneous Service Fees, A7. "Trench for water line, etc. (miscellaneous trench)" are the responsibility of the contractor. The permit fee shall be calculated based on the total lineal feet of the project. The contractor is encouraged to reference the Tacoma Municipal Code to calculate the fee prior to bid submittal. Fees are subject to CPI adjustments.

The permit may be obtained at the City of Tacoma Planning and Development Services Department, 3<sup>rd</sup> Floor, 747 Market St, Tacoma (253-591-5030). The contractor shall provide approximate lineal feet and specification number to the permit personnel. A copy of the permit shall be provided to Tacoma Water as part of the submittals

Traffic control plans shall be submitted to Tacoma Public Works, Traffic Engineering, room 520, 747 Market St, Tacoma, (253) 591-5275, for review and comment. When using the WSDOT Standard "K" Plans, the street names are to be listed on the plans with construction start date and intended working hours.

Water used during construction can be obtained from an approved Tacoma Water fire hydrant. The Contractor will be billed for the water used and shall pay for a "Hydrant Use Permit" and make a deposit on the water meter. The Contractor shall contact the Water Permit Counter at (253) 502-8247, for information regarding water consumption fees, Hydrant Use Permit fees, meter deposits and approved Tacoma Water hydrant locations. Permit fees and deposits shall be paid prior to using an approved Tacoma Water hydrant.

#### **1-07.16(2) Vegetation Protection and Restoration**

*This section is supplemented with the following:*

Care shall be taken when directed by the Field Inspector to save existing landscaping and trees. The Contractor shall remove any unnecessary debris and rocks and leave landscaping areas in a prepared fashion. Any necessary landscape restoration shall be completed by Tacoma Public Utility landscape crews.

#### **1-07.16(4) Archaeological and Historical Objects**

*This section is supplemented with the following:*

Whenever the Contractor identifies a situation that may involve the discovery of unanticipated cultural resources, the Contractor will immediately cease work and notify the City Inspector. Situations involving the discovery of unanticipated cultural resources include but are not limited to human skeletal remains, Anthropogenic soil horizons (areas showing the influence of humans on nature), occupational surfaces (areas showing evidence of human activity or habitation), midden (dunghill or refuse heap), stone tools or waste flakes (arrowheads or stone chips), bones, burned rocks, other food related material in association with stones tools or flakes, cluster of cans or bottles, tunnels, or logging or agricultural equipment more than 50 years old. The Contractor will take all steps necessary to protect and secure the suspected cultural resource until the City Inspector is able to assess the discovery and determine whether work can resume. Delays of greater than one hour will be considered standby time and will be compensated under the Force Account. If a significant delay is anticipated, the

Inspector may direct the Contractor to temporarily abandon the excavation and move to a more distant location to resume work until the situation can be addressed. Tacoma Water will take responsibility for contacting the appropriate state and local agencies.

#### **1-07.18 Public Liability and Property Damage Insurance**

*This section is deleted in its entirety:*

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

##### **1-07.23(1) Construction Under Traffic**

*This section is supplemented with the following:*

All traffic control devices must meet the requirements established by the Manual on Uniform Traffic Control Devices.

The Contractor shall prepare a traffic control plan (TCP) and submit to Tacoma Public Works, Traffic Engineering, room 520, 747 Market St, Tacoma, (253) 591-5275, for review and comment per 1-10.2(1)A. The approved traffic control plan must be on site and accessible for inspection at all times by local law enforcement or inspectors. An approved copy of the traffic control plan shall be submitted to Greg Armstrong, Tacoma Water's Construction Operations Manager, prior to start of construction.

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.

A flagger shall not be used to direct traffic flow 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. In some situations, the local Traffic Engineer may turn the signal to an all way stop for flagger control. Prior approval must be obtained from the local Traffic Engineer.

The Contractor may close non-arterial streets to through traffic, if allowed in the approved traffic control plan, provided that local access is maintained at all times with a minimum of a 20-foot wide access lane. The Contractor shall coordinate any closures and cooperate with the various businesses and/or residences adjacent to the project site. A minimum of one access shall be maintained to all properties at all times.

Whenever, during the course of construction, it becomes necessary because of the nature of the work, for the Contractor to barricade any street or any part thereof, or to place any obstruction which will impede the flow of traffic in any public thoroughfare within and outside the project area, then the Contractor will be required to give notice of the intended interruption to traffic, setting forth the period and necessity.

The Contractor shall coordinate with the Traffic Engineer of the local jurisdiction on all matters pertaining to the movement of vehicular and pedestrian traffic past the project area.

Any permits required for obstruction or closure of thoroughfares shall be obtained by the Contractor at his/her expense.

The Contractor shall at all times exercise adequate precautions for the safety of all persons, including employees, in the performance of this contract and shall comply with all applicable provisions of federal, state, county and municipal safety laws and regulations.

Tacoma Water's Inspector and/or Engineer may advise the Contractor and the Public Utilities Safety Officer of any safety violations. It is the Contractor's responsibility to correct the violation. Failure to correct safety violations shall be grounds for a cease order from the Public Utilities Safety Officer, Engineer, or Inspector. Time and wages lost due to such safety shutdowns shall be at the sole cost of the Contractor. Time lost due to cease orders for safety violations will still be counted in the required number of days the Contractor has to complete the contract.

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

## **1-08 PROSECUTION AND PROGRESS**

### **1-08.3 Progress Schedule**

*This section is supplemented with the following:*

The contract shall be completed in phases to allow Tacoma Water crews access to begin the service transfer process. All costs for phasing the work and completing the work as specified shall be included in the various bid items of the proposal.

Each phase of this project will be tested, sampled, flushed and put into service in segments. This will allow Tacoma Water crews to start service transfers within that segment immediately following successful testing, sampling and flushing on that segment. The Tacoma Water inspector will coordinate test sections and connections, to insure customers are kept in service and fire protection is not diminished. The Contractor shall be required to make connections and install hydrants as sampled sections become available and services are transferred; not wait until all mainline is constructed.

Please note; Service transfer work by Tacoma Water will not commence until such time as the section of water main has been placed into service and the trench has been successfully backfilled, as demonstrated through receipt of successful compaction test results for that portion of water main to be placed in service.

For water service transfers:

- For water services two inches and smaller, the Contractor shall anticipate one working day per service for Tacoma Water crews to complete service transfers.
- For water services larger than 2-inches, the Contractor shall anticipate one and one half working days per service for Tacoma Water crews to complete service transfers.

### **1-08.5 Time for Completion**

*This section is supplemented with the following:*

Time is of the essence for this contract; therefore, work shall commence within ten (10) calendar days of the "Notice to Proceed," and all work shall be completed within **Sixty-Five (65)** working days thereafter.

If the Contractor elects to start work prior to the expiration of the ten (10) calendar days-waiting period from the date of the official notice to proceed, no working days will be charged during this period.

### **1-08.5(1) Hours of Work**

*This section is added with the following:*

Except in the case of emergency or unless otherwise approved by the Contracting Agency, the normal straight time working hours for the contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. of a working day with a maximum 1-hour lunch break and a 5-day work week. The normal straight time 8-hour working period for the contract shall be as specified in section 1-08.5(2) or established at the preconstruction conference or as specified by the jurisdictional right-of-way permit.

If a Contractor desires to perform work on holidays, Saturdays, Sundays, or before 7:00 a.m. or after 6:00 p.m. on any day, the Contractor shall apply in writing to the Engineer for permission to work such times. Permission to work longer than an 8-hour period between 7:00 a.m. and 6:00 p.m. is required. Such requests shall be submitted to the Engineer no later than seven (7) days prior to the day for which the Contractor is requesting permission to work.

Permission to work between the hours of 10:00 p.m. and 7:00 a.m. during weekdays and between the hours of 10:00 p.m. and 9:00 a.m. on weekends or holidays may also be subject to noise control requirements. Approval to continue work during these hours may be revoked at any time the Contractor exceeds the Contracting Agency's noise control regulations or complaints are received from the public or adjoining property owners regarding the noise from the Contractor's operations. The Contractor shall have no claim for damages or delays should such permission be revoked for these reasons.

Permission to work Saturdays, Sundays, holidays or other than the agreed upon normal straight time working hours Monday through Friday may be given subject to certain other conditions set forth by the Contracting Agency or Engineer. These conditions may include but are not limited to: requiring the Engineer or such assistants as the Engineer may deem necessary to be present during the work; requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency employees who worked during such times, on non-Federal aid projects; considering the work performed on Saturdays, Sundays, and holidays as working days with regards to the contract time; and considering multiple work shifts as

multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period. Assistants may include, but are not limited to, survey crews; Water Distribution support personnel; inspectors; and other Contracting Agency employees when in the opinion of the Engineer, such work necessitates their presence.

#### **1-08.5(2) Project Specific Working Hours**

*This section is added with the following:*

Except as otherwise specified in section 1-08.5(1), this project's working hours shall be 8:00 a.m. to 4:30 p.m., Monday through Friday.

### **END OF SECTION**

## **1-09 MEASUREMENT AND PAYMENT**

### **1-09.1 Measurement of Quantities**

*This section is revised to read:*

"Lump sum" items, except mobilization, shall be measured and paid on a pro-rated basis in accordance with water main installation progress as determined by the lineal feet of water main installed on each progress payment. Mobilization lump sum shall be paid in accordance with section 1-09.7.

### **1-09.6 Force Account**

*This section is supplemented with the following:*

Tacoma Water has estimated the cost of the bid items for "Force Account" and "Force Account-Erosion/Water Pollution Control" and has entered the amounts in the bid proposal to become a part of the total bid by the Contractor. It is for the purpose of providing a common proposal for all bidders and for that purpose only.

### **1-09.7 Mobilization**

*This section is supplemented with the following:*

Only one (1) mobilization shall be paid and is inclusive of all water and road restoration work.

### **END OF SECTION**

## **1-10 TEMPORARY TRAFFIC CONTROL**

### **1-10.2(1) A Traffic Control Management**

*This section is supplemented with the following:*

Traffic control plans (TCP) shall be submitted to the City of Tacoma for review and comment. When using the WSDOT Standard "K" Plans, the street names are to be listed on the plans with construction start date, the intended working hours and the

project number. The WSDOT Standard “K” Plans are available online at the Washington State Department of Transportation website.

The Contractor is required to contact the local school district and local transit authority three (3) working days prior to any road closure at the number listed in section 1-05.13(1).

#### **1-10.4 Measurement**

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

*This section is supplemented with the following:*

Temporary traffic control labor for this project per lump sum.

#### **1-10.5 Payment**

##### **1-10.5(1) Lump Sum Bid for Project (No Unit Items)**

*This section is supplemented with the following:*

“Project Temporary Traffic Control”, lump sum.

The lump sum bid price for “Project Temporary Traffic Control” will include all labor, materials, signs, portable changeable message signs, barricades, flaggers, spotters, uniform police officers, etc. for all phases of construction. TCS labor is incidental to the contract.

### **END OF SECTION**

## **2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

### **2-02.3 Construction Requirements**

*This section is supplemented with the following:*

As indicated on the plans or as directed by the Engineer all old pipe (except wood stave and Asbestos Cement pipe), valves, hydrants and fittings salvaged from replaced pipe lines shall be delivered by the Contractor to the Water Storeroom at South 35th and Union Avenue (Tacoma, WA) at no additional cost. Otherwise, disposal is incidental to the contract.

Salvage methods shall be used which will save all material intact and undamaged.

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

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

Removal and disposal of existing pavement, sidewalks, curbs, and gutters includes all combinations and thicknesses. No additional compensation shall be made for varying combinations and thicknesses.



All costs for the removal and disposal of existing concrete curb, sidewalk, driveways, and alley approaches for the water main or related appurtenances shall be included in the unit contract bid price.

#### **2-02.3(4) Historical Buried Structures-Abandoned Trolley/Railroad Tracks**

*This section is added with the following:*

The Contractor is advised that buried structures may be encountered as part of this project. Information indicates the potential for encountering abandoned Trolley/Railroad tracks and bedding. The estimated track locations are taken from various archived records and Tacoma Water does not guarantee the accuracy or take responsibility for these records. Locations and nature of the structures are generally unknown, and the contractor is advised the quantities will be based on the conditions encountered at the time of the work.

Any slurry generated by saw cutting shall be collected by a wet-vacuum and kept out of the storm sewer system. The contractor shall not violate the requirement of WSDOT Standard Specifications, 2016 M 41-10, section 1-07.5 (Fish and Wildlife and Ecology Regulations)..

#### **2-02.4 Measurement**

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

No measurement for removal and reclaiming salvaged material shall be made and shall be considered incidental to the contract.

Measurement for Removal and disposal of existing pavement, sidewalks, curbs, and gutters associated with the water main installation will be made by the square yard.

Measurement for "Sub-Surface Railroad/Trolley Bedding Removal" will be per square yard and includes all thicknesses and combinations.

#### **2-02.5 Payment**

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

"Removal and disposal of existing pavement, sidewalks, curbs, and gutters includes all thicknesses & combinations", per square yard.

"Removal and disposal of existing pavement, sidewalks, curbs, and gutters includes all thicknesses & combinations", shall include all costs for saw cutting, wheel trenching, hydro hammering, chipping, grinding, etc., the existing street for water main construction and hydrant laterals. The wheel trencher may be used for the thicker initial cuts for main/hydrant installation. Additional cuts to square up the permanent patch for concrete base and asphalt concrete will be made after trenching and pouring the concrete base, respectively, when applicable, and will encompass areas disturbed by service transfers. All costs for additional cuts shall be included in the unit contract bid price.

"Sub-Surface Railroad/Trolley Bedding Removal", per square yard.

The unit bid price for "Sub-Surface Railroad/Trolley Bedding Removal", shall include but not limited to: removal of varying thicknesses of concrete, rails, and railroad ties.

## **END OF SECTION**

### **2-13 CONTROL AND MANAGEMENT OF CONTAMINATED MATERIALS**

*This section is added with the following:*

#### **2-13.1 Construction Requirements**

##### **2-13.1(1) General**

Whenever the Contractor identifies a situation that may involve contaminated/hazardous wastes, the Contractor will immediately cease work and notify the City Inspector. Situations involving contaminated/hazardous wastes may be identified by uncharacteristic odors, soil appearance, texture, containers such as drums or cans and color. The inspector will seek the assistance of TPU environmental professionals to determine the next course of action. The Contractor will take all steps necessary to protect personnel until all risks are identified and safe work can resume. Delays of greater than one hour will be considered standby time and will be compensated under the Force Account. If significant risks or contaminated/hazardous wastes are encountered requiring significant delays, the inspector may direct the Contractor to temporarily abandon the excavation and move to a more distant location to resume work until the situation can be addressed. Tacoma Water will take responsibility for sampling, testing and identification of proper disposal of all hazardous wastes.

A determination for method of disposal will be made upon receipt of sampling results. Excavated spoils will be the responsibility of the Contractor for proper disposal. All hazardous waste must be disposed in an appropriately licensed solid waste facility. The Contractor must identify the facility they will utilize prior to beginning work.

Transport and Disposal of Contaminated/Hazardous Waste includes all costs for the excavation, transportation and disposal of all excavated material which must be disposed in a solid waste landfill. Payment per ton will be determined by the actual weight delivered to the permitted landfill, which must be listed on the scale ticket from the landfill. The original weight ticket from the landfill must be delivered to the inspector or provided with invoice for payment.

There are no estimated numbers for this item, but the cost will be applied if any waste is encountered. This item is not considered for calculation of the total bid amount. Any costs under this item will be covered under the Force Account item.

## **END OF SECTION**

## **5-04 HOT MIX ASPHALT**

### **5-04.3 Construction Requirements**

*This section is supplemented with the following:*

Prior to the first Hot Mix Asphalt (HMA) placement on the project, a pre-paving meeting will be held by the Construction Inspector, Contractor and Paving Contractor representative. This meeting will establish the lines of communication and provide common knowledge of how the contractor will proceed and what the inspection staff will be expecting. An example of the pre-paving agenda is shown at the back of these Special Provisions.

Two (2) inches of HMA shall be placed and maintained as temporary surfacing in open cut areas of streets, driveways and sidewalks as directed by the Inspector. Temporary HMA paving shall be done so that the entire pavement cut will receive a temporary patch by the conclusion of the day's work to allow resumption of normal traffic patterns. Temporary paving shall be placed such that it will hold up to heavy traffic for an extended period of time. All paving shall be saw-cut or neat spade prior to excavation.

The Contractor shall maintain a temporary patch while Tacoma Water personnel renew the services and transfer them to the new main, after which he/she shall start with additional street repairs. The Contractor shall make permanent street repairs for all pavement disturbed by Tacoma Water personnel during service renewal/transfer at the unit price bid in the Proposal for those items.

The Contractor shall inform himself/herself of Tacoma Public Works requirements for surface repairs and adjustment of facilities. All manhole rings and valve boxes shall be removed/lowered prior to paving and set to grade after final HMA paving per dwg. SU-25 or dwg 17-56-1, incidental to contract.

The bid item "HMA Cl. \_\_\_\_\_ PG \_\_\_\_\_, per ton" shall include all costs for labor, and materials to install HMA wedge curbing removed as part of this project.

The Contractor shall restore all drainage ditches, culverts and embankments disturbed by his/her operations. The cost and expense for such restorative work is incidental to the Contract. The permanent street repair will be made to the satisfaction of the local jurisdiction and to its standards as shown in the plans.

The Contractor shall confine his/her operations as much as possible, such that there is minimal damage to existing pavement.

It shall be the Contractor's responsibility to protect the edge of the paved roadway at all times. The expense for pavement repairs beyond the neat line of the trench due to over-excavation or damage to the roadway edge caused by heavy equipment, spoil cleanup or other operations of the Contractor shall be the responsibility of the Contractor.

No permanent street repairs will be made until the services are transferred to the new main. The removal of trench backfill for permanent street repairs will be incidental to the bid, including additional areas disturbed during the service transfers.

**5-04.3(3) Hot Mix Asphalt Pavers**

*The second paragraph of this section is deleted:*

**5-04.3(3)A Material Transfer Device/Vehicle**

*This section is deleted:*

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

*This section is supplemented with the following:*

Verification of the mix design by the Contracting Agency is not required. The Contractor shall determine anti-strip requirements for HMA and provide data for anti-stripping.

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

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

*This section is deleted:*

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

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

*The first paragraph is revised to read:*

Acceptance of HMA shall be as provided under nonstatistical or commercial evaluations.

*The second and third paragraphs are deleted.*

*The fourth sentence of the fourth paragraph is deleted.*

**5-04.3(10) Compaction**

**5-04.3(10) A General**

*This section is supplemented with the following:*

During paving operations, a certified compaction testing agency shall be at the project site to take compaction test. Testing locations shall be identified by street name, approximate station and centerline offsets. Minimum number of tests required shall be based on the criteria of 1 test per 150 lineal feet with a minimum of 2 tests per trench. On-site test results verifying proper compaction will be provided to both the inspector and the contractor prior to commencing the next lift. Copies of compaction tests results reports shall be provided to the Tacoma Water Construction Inspector within 24 hours. Compaction test results may be sent electronically to facsimile telephone number, (253) 502-8694, to the attention of Greg Armstrong, or emailed to [garmstro@cityoftacoma.org](mailto:garmstro@cityoftacoma.org). Compaction test results shall list the Tacoma Water Project No., Specification No., Date and Time of compaction test, and station of the compaction test location.

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

*This section is revised to read:*

HMA mixture accepted by statistical or nonstatistical evaluation that is used in traffic lanes, including lanes for ramps, truck climbing, weaving, and speed change, and having a specified compacted course thickness greater than 0.10-foot, shall be compacted to a specified level of relative density. The specified level of relative density shall be a Composite Pay Factor (CPF) of not less than 0.75 when evaluated in accordance with Section 1-06.2, using a minimum of 91.0-percent of the reference maximum density as determined by WSDOT FOP for AASHTO T 209. The specified level of density attained will be determined by the non-statistical evaluation of nuclear density tests taken on the day the mix is placed (after completion of the finish rolling).

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

HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Project Engineer. The number of passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

HMA for preleveling shall be thoroughly compacted. HMA that is used for preleveling wheel rutting shall be compacted with a pneumatic tire roller unless otherwise approved by the Engineer.

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

At the start of paving, if requested by the Contractor, a compaction test section shall be constructed as directed by the Engineer to determine the compactibility of the mix design. Compactibility shall be based on the ability of the mix to attain the specified minimum density (91 percent of the maximum density determined by AASHTO T209). Following determination of compactibility, the Contractor is responsible for the control of the compaction effort. If the Contractor does not request a test section, the mix will be considered compactible.

HMA constructed under conditions other than listed above shall be compacted on the basis of a test point evaluation of the compaction train. The test point evaluation shall be performed in accordance with instructions from the Engineer. The number of

passes with an approved compaction train, required to attain the maximum test point density, shall be used on all subsequent paving.

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

#### **5-04.3(10)B2 Cyclic Density**

*This section is deleted:*

#### **5-04.3(13) Surface Smoothness**

*The first paragraph is revised to read:*

The completed surface of all courses shall be of uniform texture, smooth, uniform as to crown and grade, and free from defects of all kinds. The completed surface of the overlay shall not vary more than 1/8 inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline. The transverse slope of the completed surface of the overlay shall vary not more than 1/4 inch in 10 feet from the rate of transverse slope of the existing roadway grades.

#### **5-04.4 Measurement**

*This section is supplemented with the following:*

Copies of the weigh tickets shall be given to the Tacoma Water Construction Inspector daily.

Temporary HMA CI \_\_\_\_\_ PG \_\_\_\_\_, \_\_\_\_-inch minimum depth will be measured by the surface square yardage.

"HMA CI. \_\_\_\_\_ PG \_\_\_\_\_ pavement for permanent trench patch", will be measured per ton.

#### **5-04.5 Payment**

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

"Temporary HMA CI \_\_\_\_\_ PG \_\_\_\_\_, \_\_\_\_-inch minimum depth, installed & removed", per square yard.

The unit contract price per square yard for "Temporary HMA CI \_\_\_\_\_ PG \_\_\_\_\_, \_\_\_\_-inch minimum depth, installed & removed" shall be full compensation for all costs including mobilization, preparation, placement, compaction, maintenance and removal in preparation for permanent street repairs.

"HMA CI. \_\_\_\_\_ PG \_\_\_\_\_", per ton.

The unit contract price per ton for "HMA CI. \_\_\_\_\_ PG \_\_\_\_\_" shall be full compensation for all costs incurred for mobilization, preparation, trimming, grinding, pre-leveling, hot mix asphalt pavement, sweeping, tack coat, joint sealing, saw-cutting, pavement compaction tests and fog seal in accordance with plan details, City of Tacoma Standard Plans, and WSDOT Standard Specifications, 2016, M41-10, section 5-04. All manhole rings and valve boxes shall be removed/lowered prior to paving and set to grade after final HMA paving per dwg. SU-25 or dwg 17-56-1, incidental to contract.

#### **5-04.5(1) Quality Assurance Price Adjustments**

*This section is deleted.*

### **END OF SECTION**

## **7-04 STORM SEWERS**

### **7-04.3 Construction Requirements**

*This section is supplemented with the following:*

Storm sewers may be encountered at various locations throughout this project. Prior to the start of the storm sewer repair, the Inspector and/or contractor shall notify the Tacoma Water Inspector. C900 PVC, Ductile Iron or 3034 PVC may be used on storm line repairs. The repair of the storm sewer shall be made three feet outside of the water main trench. No additional compensation shall be made for the extended connection and material. Mechanical couplings (Romac or equivalent) shall be installed at both ends of the storm sewer restoration forming a rigid connection between the new and existing pipe. Rigid PVC slip couplings for PVC pipe and Romac mechanical style for concrete pipe only. Repair/replacement/restoration will be at the inspector's discretion and the local jurisdiction.

### **7-04.4 Measurement**

*This section is revised to read:*

Storm, Sanitary, and Side Sewer Restoration will be measured per each.

### **7-04.5 Payment**

*This section is revised to read:*

"Storm, Sanitary, and Side Sewer Restoration", per each.

"Storm, Sanitary, and Side Sewer Restoration", includes any work and materials required to remove and replace storm, sanitary, and side sewers shall be included in the bid item. This is a per each bid item that includes all costs but is not limited to pipe, fittings, pea gravel, labor, and equipment, etc. to repair sewers.

### **END OF SECTION**

## **7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS**

### **7-05.3(2) Adjust Existing Supply Main Manholes**

*This section is supplemented with the following:*

Supply water main chambers located on project limits on Sta. 11+95, Sta. 18+05, Sta. 23+84 and Sta. 30+30 shall be adjusted per following specifications (See sheet 17-Existing Chamber Detail):

- Grind the asphalt around chamber openings (manhole access and gate box)
- Protect the chamber top and existing gate boxes with steel plates

- Existing frame and cover shall be replaced with 24" in diameter Kam-Lok manhole frame and cover and bring to final elevation of asphalt
- Grade adjusting rings shall be precast concrete per ASTM C478-18
- If one or more grade adjusting rings are required than each section shall be sealed with a double amount of flexible butyl sealant – ConSeal CS-101, or equal. The mastic sealant shall be placed on the chamber and between each riser. Areas that mastic is placed on shall be clean and free of debris prior to placement
- All precast concrete risers and frame and covers shall be installed in strict conformance with the manufacturer's written instruction
- Risers and frame and covers shall be installed plumb
- Castings for manhole frames and covers shall be non-rocking and shall conform to the requirements stated on the drawings 576-B1, 24" Kam-Lok Manhole Frame and Cover
- Chamber adjustment backfill to be per WSDOT Standard Specification 9-03.9(3)

#### **Supply Main Vent Pipe Adjustment:**

- Raise vent pipe at chamber with existing vent pipe such that the vent pipe extends 2-feet above the finished grade of the surrounding area
- Remove existing elbows and nipples and cap and install new elbows, nipples, and cap in accordance with requirements on the drawing 663-A, Standard Breather Pipe for Chambers

#### **Modified Chamber:**

The existing Supply Main Chamber at Sta. 42+08 on sheet 9 of the plans will be modified per Modified Chamber Detail on sheet 17 of plans. The top of the Water Supply Chamber will be replaced from a conic to a rectangle configuration (see sheet 17-Modified Chamber Detail)

#### **Valve Boxes:**

All valves will have standard ductile iron water valve box set to grade. If valves are not set in a paved area, a 3-foot by 3-foot by 4-inch concrete pad will be set around each valve box at finished grade. In areas where the valve box falls in the road shoulder, the ditch and shoulder will be graded before placing asphalt or concrete pad. Valve box lids will be ductile iron and marked 'WATER'. Ladders shall be extended to the elevation of the new frame and cover. Work to extend ladders to new elevation will be performed by Tacoma Water personnel. Ladders and Valve stem extensions shall be extended from the operating nut of each valve to within the gate box cast in the lid of the chamber or placed in the asphalt.

### **7-09 WATER MAINS**

#### **7-09.1 Description**

*The first paragraph is revised to read:*

This work consists of constructing water mains 24-inch in diameter and smaller in accordance with the Plans, these Standard Specifications, the Special Provisions and the Standard Plans, at the location shown on the Plans for Tacoma Water.



*This section is supplemented with the following:*

All pipe, fittings, valves, hydrants and other materials to be installed and placed under these specifications are intended to form a durable section of the distribution system of ample strength and capacity for the operating pressures in the area covered for domestic, commercial and fire protection uses and must be completed in condition to supply potable water of the highest sanitary quality. All material must be selected and the work planned and carried out to accomplish this purpose.

The cost of any item of work to be completed or materials to be furnished on the contract drawings or stated in the project specifications and having no special bid item in the Proposal, shall be considered included in the various bid items of the contract and no separate payment will be made. All materials required and not specifically listed herein to be furnished by Tacoma Water shall be furnished by the Contractor.

Any part of work not specifically covered by these specifications shall be in accordance with the American Water Works Association (AWWA) Standard Specifications and the Ductile Iron Pipe Research Association (DIPRA).

#### **7-09.1(1) C Gravel Backfill for Pipe Zone Bedding**

*This section is supplemented with the following:*

Gravel Backfill for Pipe Zone Bedding only applies to PVC pipe, bedding shall be 6-inches above and 6-inches below the crown and invert of the pipe, respectively as shown on the Tacoma Water Plans.

#### **7-09.1(1) D Pipe Zone Backfill**

*This section is revised to read:*

Aggregates for the trench section above the "Pipe Zone Bedding" will conform to the requirements for Trench Backfill 7-09.1(1) E.

#### **7-09.2 Aggregate Materials**

*Under the heading Aggregates:*

"Gravel Backfill for Pipe Zone Bedding                      9-03.12(3)" is revised to read:

Gravel Backfill for Pipe Zone Bedding                      9-03.1(2) B, Class 2.

"Trench Backfill    9-03.15 or 9-03.19" is revised to read:

Trench Backfill    9-03.9(3), Top Course

*This section is supplemented with the following:*

All materials shall conform to American Water Works Association (AWWA) and the Ductile Iron Pipe Research Association (DIPRA).

All Push on Joint and Mechanical Joint rubber gaskets shall be styrene-butadiene rubber (SBR). All gaskets must conform to ANSI/AWWA C111-72 or revision thereof.

### **7-09.3 Construction Requirements**

#### **7-09.3(1) General**

*This section is supplemented with the following:*

Trench Excavation shall be loaded directly onto trucks. Trench Excavation shall not be stockpiled along the trench or on paved streets, driveways, and sidewalks.

Alignment and grade stakes will be provided by Tacoma Water. The Contractor shall provide a minimum of 5 days working days' notice for staking by Tacoma Water. Request for survey shall be made through Greg Armstrong, Tacoma Water Construction Operations Manager, (253) 502-8742. The Contractor shall use a string line to maintain true grade, and alignment between stakes. Use of electronic leveling devices for grade and alignment shall be at the discretion of the Inspector where string line is impractical.

#### **7-09.3(1) B Trench Foundation**

*This section is added with the following:*

Trench areas found to be inadequate for a solid pipe line trench foundation shall be over excavated and quarry spalls shall be placed until an adequate foundation is accomplished then sand bedding. Note, the profile shows the invert elevation of the pipe, not the bottom of the trench.

#### **7-09.3(1) C Sand Bedding for Polyethylene Encased Pipe and PVC Pipe**

*This section is added with the following:*

To avoid puncturing or tearing of the polyethylene sleeve and to protect the PVC pipe a clean washed sand encasement 6-inches below designed grade of the pipe, trench width, to 6-inches above the top of pipe (refer to "Trench Section" detail on sheet 18). Note, the profile shows the invert elevation of the pipe, not the bottom of the trench.

The sand bedding around the pipe shall be compacted by water settling and/or mechanical equipment. The remaining trench section shall be compacted with mechanical equipment to the standards as specified in "7-09.3(11) Compaction of Backfill".

The sand used for bedding, cradling and protective backfill around the pipe shall be well-graded, screened to pass 3/8-inch sieve, and free of any humus, clay, pea gravel, or deleterious matter. Sand shall be approved by the Tacoma Water Construction Inspector prior to use.

#### **7-09.3(5) Grade and Alignment**

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

The depth of trenching for water mains shall be such as to give a minimum cover of 42 inches over the top of pipe unless otherwise specified on the plans, within these Special Provisions, or approved by the Engineer.

### **7-09.3(6) Existing Utilities**

*This section is supplemented with the following:*

The lump sum bid item for of "Test Holes" is for the purpose of pre-determining and resolving conflicts with existing utilities and is required to be completed prior to the water main installation. Proper test holes cannot be accomplished until utility "one call" locates have established and maintained. The selection of methods materials or equipment used for test holes is at the discretion of the contractor. No additional compensation will be made for any particular or specialized equipment or technique utilized by the Contractor. The work shall include all techniques as necessary to field verify and locate all existing utilities, whether shown on the plans or located via one call utility locates, at all new main crossings. Test-hole excavation shall be done in the presence of the Construction Inspector. Test-hole data shall be provided to the inspector prior to main construction and adequate time given to the engineer to re-design if necessary. If the elevation/alignment of the existing utilities is in conflict with the new main installation, the elevation/alignment design will be adjusted by the engineer/inspector.

Additional compensation for any extra excavation required will be made to the contractor via the Trench Excavation and Disposal item as supplemented in these Special Provisions.

Sanitary side sewers and storm catch basin laterals that are unmarked or not locatable and are damaged during water main construction will be repaired and/or replaced as necessary. Prior to the start of the repair, the Inspector and/or contractor shall notify agency responsible for system and make repairs to their standards and make the repair available for the agencies inspection if required or requested. Repair/replacement/restoration will be at the inspector's discretion and in accordance with sections 7-04, 7-17, 7-18 and the Washington State Department of Ecology, Criteria for Sewer Works Design, sections C1-8 and C1-9.

### **7-09.3(7) Trench Excavation**

*The third sentence of the second paragraph of this section is revised to read:*

The minimum trench width shall be the nominal pipe diameter plus 16 inches. The maximum trench width shall not exceed 30-inches, or 1.5 times the outside diameter of the pipe plus 18-inches, whichever is greater, unless otherwise approved by the Engineer to allow for proper construction of the pipeline, fittings and other appurtenances.

### **7-09.3(7)A Dewatering of Trench**

*This section is supplemented with the following:*

The Contractor is responsible for having proper and operational equipment for dewatering. The contractor will have operational de-watering equipment on site prior to main shutdown. The cost of all labor, equipment and materials for de-watering shall be included in the various bid items of the contract. No additional compensation will be made for dewatering.

The Contractor is responsible for keeping excavations free from water during construction and disposing of the water in a manner that will not cause injury to public or

private property, or to cause a nuisance or a menace to the public. The Contractor shall maintain dry working conditions at all times and under all conditions. Groundwater flowing toward or into excavations shall be controlled to prevent sloughing of excavation walls, boils, uplift, and heave in the excavation, and to eliminate interference with orderly progress of construction. While the excavation is open, the water level shall continuously be maintained at least two (2) feet below the working level. The control of groundwater shall be such that softening of the bottom of excavations, or formation of “quick” conditions or “boils” during excavation, shall not occur. The Contractor is responsible for all foundation material required due to lack of dewatering efforts.

All costs associated with dewatering shall be incidental to Trench Excavation and Disposal, Section 7-09.3(8) of these specifications.

#### **7-09.3(7)C Extra Trench Excavation**

*The 4<sup>th</sup> paragraph of this section is revised to read:*

Additional excavations so required shall be classified as Trench Excavation and Disposal.

#### **7-09.3(8) Removal and Replacement of Unsuitable Materials**

*This section heading is revised to read:*

##### **“7-09.3(8) Trench Excavation and Disposal”**

*This section is supplemented with the following:*

Unless specified elsewhere in the plans or special provisions the scope of this Contract shall include the export and disposal of 100% of all excavated materials and the import of 100% of all trench backfill material.

#### **7-09.3(9) Bedding the Pipe**

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

**When installing ductile iron pipe**, aggregates for “Pipe Zone Bedding” shall conform to the requirements for “Trench Backfill”.

**When installing PVC pipe water main**, the Contractor shall install clean washed sand (Gravel Backfill for Pipe Zone Bedding) 6-inches below designed grade of the pipe, trench width, to 6-inches above top of pipe. Note, the profile shows the invert elevation of the pipe, not the bottom of the trench. The sand used for “Gravel Backfill Pipe Zone Bedding” shall meet the requirements of Section 9-03.1(2)B, Class 2, as described in 2016 WSDOT Standard Specifications.

The “Backfill for Pipe Zone Bedding” sand shall be compacted by water settling and/or mechanical equipment. The remaining trench section shall be compacted with mechanical equipment to the standards as specified in “7-09.3(11) Compaction of Backfill”.

### **7-09.3(10) Backfilling Trenches**

*This section is supplemented by the following*

No recycled material shall be used for trench backfill. Unless otherwise specified, Tacoma Water will require full depth CSTC for trench backfill and compacted in accordance with the 2016 WSDOT Standard Specifications. The contractor will be required to provide a current proctor of material for compaction testing. Compaction testing will be paid under a separate bid item. CSTC shall also be placed in areas of existing rock surfacing disrupted by the water main construction and in any other areas where directed by the inspector, and rolled with a power roller.

### **7-09.3(11) Compaction of Backfill**

*This section is supplemented by the following*

Backfill shall be compacted to at least 95-percent of maximum density as specified in Section 2-03.3(14)D.

At locations where paved streets, roadway shoulders, driveways, or sidewalks will be constructed or reconstructed over the trench, the backfill shall be spread in layers and compacted by mechanical tampers. In such cases, the backfill material shall be placed in successive layers not exceeding 12-inches in loose thickness (or as specified in Right of Way Permit), and each layer shall be compacted with mechanical tampers to the density specified herein. Mechanical tampers shall be of the impact type as approved by the Engineer.

Compaction test locations shall be at 100 linear foot intervals, with a minimum of two compaction test locations per trench, or as directed by the Engineer. **The Contractor shall perform compaction testing each day main is installed.**

At each compaction test location, compaction tests shall be taken on each compacted layer, starting 18-inches above the pipe and finishing at the final ground surface. Each layer shall be compacted to 95% modified proctor density, as verified by compaction testing, before proceeding to place and compact the next layer. Compaction testing will be performed by a licensed testing company with trained personnel in the presence of the Tacoma Water Construction Inspector. Passing test will be based on a current proctor of material used. Costs incurred for any proctor test, and failed compaction test, are the responsibility of the Contractor.

Service transfer work by Tacoma Water will not commence until such time as the trench has been successfully backfilled, as demonstrated through receipt of successful compaction test results for that portion of water main placed in service.

### **7-09.3(12) General Pipe Installation**

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

Pipe shall be installed in accordance with the manufacturer's printed specifications and instructions, to the standards of the AWWA, the Installation Guide for Ductile Iron Pipe from DIPRA or the Handbook of PVC Pipe design and Construction from the PVC Pipe Association, for installing the type of pipe used.

### **7-09.3(14) Cutting Pipe**

*This section is supplemented with the following:*

Short lengths of field cut pipe used for bell and spigot joints shall have a bevel of 30° from center and 1/4" from the end.

When cutting PVC pipe, the cut end shall be beveled and marked to manufactures specifications.

### **7-09.3(16) Cleaning and Assembling Joint**

*This section is supplemented with the following:*

Only food-grade pipe lubricant as specified by the pipe manufacturer for potable water shall be used on joints. It shall be delivered to the job in closed containers and shall be kept clean. Pipe lubricant shall be in accordance with AWWA C111/A21.11-95 paragraph. 4.4.4, and NSF/ANSI Standard 61, latest edition.

### **7-09.3(19)A Connections to Existing Mains**

*The section is supplemented with the following:*

When connecting new mains to existing, the Contractor shall swab out all new material that will go into immediate service with a chlorine solution prior to installation. When shutdowns for connection are required, the contractor will coordinate and schedule with the inspector, a minimum of three working days prior to the scheduled time of shutdown, to allow 48-hour notification to all customers. Cancellations of the shutdown by the contractor after customer notification is made may result in a charge to the contractor for re-notification.

The Contractor is advised that existing valves used to shut down mains for connections are subject to leakage due to age and condition. The Contractor shall be prepared to deal with water from leaking valves encountered. No additional compensation will be made.

The Contractor is advised that only Tacoma Water crews may operate system valves.

The existing pipe shall be kept clean and free of debris as much as possible.

Coordination is an important part of this project so proper notification for shutdowns is necessary, such that they can be scheduled without causing delays to the Contractor or unanticipated interruption of service to Tacoma Water customers.

### **7-09.3(19)B Maintaining Service**

*The section is supplemented with the following:*

Tacoma Water will furnish all labor and materials necessary to provide temporary (hi-line) mains and services when necessary or as determined by the Construction Inspector. The Contractor may have some down time waiting for services to be hi-lined. No extra compensation will be made to the Contractor for down time due to work by City

forces. No time will be charged towards the contract's time of completion while services are transferred.

Where existing services are to be transferred from old to new mains, the work of the Contractor shall be so planned and coordinated with that of Tacoma Water that consumers will be shut off as briefly as possible.

#### **7-09.3(20) Detectable Marking Tape**

*The section including title is revised to read:*

#### **7-09.3(20) Detectable Marking Tape and Tracer Wire**

##### **7-09.3(20)A Detectable Marking Tape**

Detectable marking tape shall be installed over nonmetallic water lines including service lines, and fire hydrant laterals. The tape shall be placed approximately 18 – inches below the finished grade, directly over the water main or service, and shall extend its full length. Detectable Marking tape shall meet the requirements of Section 9-15.18, and be a minimum of 6-inch wide. Tape shall have contrasting lettering stating: "TACOMA WATER—WATER MAIN BURIED BELOW".

##### **7-09.3(20)B Tracer Wire**

Tracer Wire shall be installed on nonmetallic water mainlines and metallic fire hydrant laterals. Tracer wire along water services is not required. The tracer wire shall be installed on the top half of the pipe and secured (taped/tied) at 10 feet intervals. All tracer wire and tracer wire products shall be domestically manufactured in the U.S.A. Tracer wire shall be installed such that it can properly trace all water mains without loss or deterioration of signal or without the transmitted signal migrating off the tracer wire. Tracer wire systems must be installed as a single continuous wire, except where using approved connectors. Tracer wire must be grounded as specified. All tracer wire product and appurtenances shall be Copperhead or approved equal.

All tracer wire shall have HDPE insulation intended for direct bury, color coated per APWA standard for the specific utility being marked. Tracer wire shall be #12 AWG Copper Clad Steel, High Strength with minimum 450 lb. break load, with minimum 30 mil HDPE insulation thickness. Trace wire shall be #12 AWG Copper Clad Steel, Extra High Strength with minimum 1,150 pounds. break load, with minimum 30 mil HDPE insulation thickness for directional drilling or boring applications.

#### **Connectors**

All connectors shall be manufactured for direct burial. All mainline tracer wires must be interconnected in water main intersections, at mainline tees and mainline crosses. Branch connections at tees, the three wires shall be joined using a single 3-way lockable connector. At crosses, the four wires shall be joined using a 4-way connector. All branch connections shall securely connect one or two wires to the main trace wire without cutting the main trace wire and seal out moisture and corrosion.

Any damage occurring during installation of the tracer wire must be immediately repaired by removing the damaged wire, and installing a new section of wire with approved connectors. Taping and/or spray coating shall not be allowed.

### **Termination and Access**

Tracer wire must terminate at an approved flush mounted test station box above-ground (see detail Test Box Station on sheet 18 of plans) at **500-foot** intervals. Flush mounted test station box shall be Brooks and Christy Type G8, G05, or approved equal. Connecting with tape or plastic ties shall not be acceptable. Boxes should be color coded in accordance with APWA colors. Provide minimum two terminals at access box, with bottom terminal dedicated to grounding anode wire. Access box shall be Copperhead Cobra Hydrant Flange assembly or approved equal.

### **Grounding**

Tracer wire must be grounded at the ends where water main material changes from PVC to metallic material and at hydrant access boxes.

Grounding of trace wire shall be achieved by use of a drive-in magnesium grounding anode rod with a minimum of 20 feet of #12 red HDPE insulated copper clad steel wire connected to anode (minimum weight 1.5 pounds) specifically manufactured for this purpose, and buried at the same elevation as the utility. Anodes must all be the same weight. When grounding the trace wire at mainline ends, the grounding anode shall be installed in a direction 180 degrees opposite of the trace wire, at the maximum possible distance.

### **Testing**

All new tracer wire installations shall be located using typical low frequency (83.1 Hz) line tracing equipment MetroTech 810.

This verification shall be performed upon completion of rough grading and again prior to final acceptance of the project.

Tracer wire shall be continuous electrically through the installed piping system. The Contractor shall have a third party firm perform a conductivity test, with the presence of Inspector, on completion of the water main installation section and prior to the restoration. If the conductivity test fails, the Contractor shall be responsible for making the necessary repairs, until passing results are achieved. The third party firm for testing shall be approved by Tacoma Water and costs shall be incidental to the contract.

### **7-09.3(21) Concrete Thrust Blocking**

*This section is supplemented with the following:*

Concrete thrust blocking shall conform to Standard Drawing 17-56-1. Concrete used for thrust blocking on mains eight inch and smaller shall meet the requirements of 6-02.3(4)B Jobsite Mixing, with a compressive strength at 28 days of a minimum 3,000 psi. Temporary thrust blocking may be revised or altered as approved by the Tacoma Water Construction Inspector.



### **7-09.3(23) Hydrostatic Pressure Test**

*This section is supplemented with the following:*

Testing will only be accomplished with the approval and in the presence of the Tacoma Water Construction Inspector. The Tacoma Water Construction Inspector will provide his/her own set of pressure gauges. Testing will conform to DIPRA standards.

### **7-09.3(23)A Testing Extensions From Existing Mains**

*This section is supplemented with the following:*

Testing will only be accomplished with the approval and in the presence of the Tacoma Water Construction Inspector. The Tacoma Water Construction Inspector will provide his/her own set of pressure gauges. Testing will conform to DIPRA standards.

### **7-09.3(23)B Testing Section with Hydrants Installed**

*This section is supplemented with the following:*

Testing will only be accomplished with the approval and in the presence of the Tacoma Water Construction Inspector. The Tacoma Water Construction Inspector will provide his/her own set of pressure gauges. Testing will conform to DIPRA standards.

### **7-09.3(24)A Flushing**

*This section is revised to read:*

In laying mains, care shall be taken to insure that the interior of the pipe is kept free of foreign matter or trench water. Upon completion of construction, the line shall be filled slowly under the direction of the Engineer and a pressure test conducted.

Sections of pipe to be disinfected shall first be flushed to remove any solids or contaminated material that may have become lodged in the pipe. If a hydrant is not installed at the end of the main, then a tap shall be provided large enough to develop a flow velocity of at least 2.5 fps in the water main.

Tacoma Water crews will flush, sample, and de-chlorinate newly installed water mains. The Contractor is advised that only Tacoma Water crews shall operate system valves.

Water for testing and sterilizing will be furnished without charge to the Contractor at such points as may be designated by the Inspector, in such quantities and at such times as will not interfere with service to Tacoma Water customers.

### **7-09.3(24)K Retention Period Flushing**

*This section is revised to read:*

The chlorinated water resulting from the initial filling shall be retained in the line for a period of not less than 24 hours. After this period the chlorine residual at the pipe extremities and at other representative points shall be at least 25 p.p.m. After which Tacoma Water will remove the chlorinated water and thoroughly flush the line. Tacoma Water shall take initial bacterial test samples of water flowing in the line upon completion of the flushing.

A second set of bacterial test samples will be taken after a 24-hour retention period of the water remaining in the pipe after the initial flushing. Should the samples not test free of E coli and zero coli-form bacteria, the line shall be re-disinfected and re-flushed, at the expense of the Contractor, until two successive satisfactory samples are obtained.

Forty-eight hours is the minimum time required by the bacteriological laboratory to process samples.

#### **7-09.3(24)N Final Flushing and Testing**

*This section is revised to read:*

The Tacoma Water Construction Inspector will determine the location of sample stations and coordinate with Tacoma Water crews for installation. Corporation stops with copper pipe stubs will be supplied and installed by Tacoma Water crews at selected points along the pipeline for use as sampling stations and points to release air, and apply test pressure.

The sampling stations will be removed by Tacoma Water crews after bacterial tests and pressure tests are completed unless the station will be used for a new water service lateral. Installation and removal of sample stations will be coordinated with the Contractor. The water main contractor shall complete any excavation required for installation and/or removal of the sample stations. The cost of all labor, equipment and materials involved in the installation and removal of sample stations shall be included in the various bid items of the contract.

Unless specified in the bid proposal or on the plans, Tacoma Water will furnish all labor and materials necessary to provide new services or to transfer present services to the new mains and to provide the required taps for testing and sterilizing.

Water for testing and sterilizing will be furnished without charge to the Contractor at such points as may be designated by the Inspector, in such quantities and at such times as will not interfere with service to Tacoma Water customers.

#### **7-09.4 Measurement**

*The ninth paragraph is revised to read:*

Trench shoring: The measurement of shoring will be by the linear foot of pipe laid and shall be measured along the pipe through fittings, valves and couplings. The single lineal foot measurement will be for both sides of the trench that is shored. Over-excavation to bypass the use of shoring/shielding is not considered a safety system and no payment will be made. Any extra quantities materials (pavement removal and replacement, trench excavation and disposal, trench backfill) attributed to over-excavation will not be paid for by Tacoma Water. Shoring/shielding requirements will be in accordance with WISHA standards and the 2016 M41-10 Washington State Department of Transportation Standard Specifications Section 7-09.3(7).

*This section is supplemented with the following:*

The bid item for removal and replacement of unsuitable material will be measured by the cubic yard and shall only cover the materials as removed as part of the trench excavation. Replacement of unsuitable materials shall be paid per the Trench backfill specification.

The unit prices bid in the Proposal shall include all the accessories, gaskets, follower glands, nuts, bolts, etc., necessary to complete the project on the approved plans.

Trench Excavation and Disposal: Measurement of extra trench excavation and disposal of unsuitable material will be by cubic yard based upon on the tonnage of trench backfill placed and accepted by the Engineer and calculated as follows:

$$\text{Trench Excavation (CY)} = \frac{(\text{Trench Backfill* (Ton)} \times 0.87)}{1.35 \text{ Ton/CY}}$$

*\*Note: Trench Backfill shall be the total of ticketed sand, CSTC, Topsoil Type A, and quarry spalls.*

“ \_\_\_\_\_-inch Ductile Iron Pipe, \_\_\_\_\_ Joint, ANSI/AWWA, C151, Special Thickness Class No. 52, installed (various sizes): Measurement for water mains will be by the linear foot measured along the pipe less fittings, valves and couplings.

The unit contract price per linear foot for each size “ \_\_\_\_\_-inch Ductile Iron Pipe, (Push-On Joint/mechanical joint), ANSI/AWWA, C151, Special Thickness Class No. 52, to furnish, lay and test” shall be full pay for all labor and materials to complete the installation of the water main including but not limited to furnishing, laying, jointing pipe, gaskets, gland/bolt kits, as well as the labor and materials for Trench Excavation and Disposal, Crushed Surfacing Top Course (CSTC) for Trench Backfill, compaction of trench backfill, pressure testing, flushing, disinfecting the pipeline and cleanup. Note, the Compaction testing of trench backfill shall be paid by bid item “Trench Compaction Test (as directed by the Engineer)”.

Payment for restoration will be made under the applicable items shown in the Proposal. If no pay items for restoration are included in the Proposal, restoration shall be considered incidental to the work of constructing the water main, and all costs thereof shall be included in the unit contract price for “ \_\_\_\_\_-inch Ductile Iron Pipe, (Push-On Joint/mechanical joint), ANSI/AWWA, C151, Special Thickness Class No. 52, to furnish, lay and test”.

Push-On Joint ANSI/AWWA, C900, DR14 to furnish, lay, and test (various sizes): Measurement for water mains will be by the linear foot measured along the pipe less fittings, valves and couplings.

Removal and disposal of abandoned CI pipe, all sizes: Measurement for Removal and disposal of abandoned CI pipe, all sizes will be by the linear foot measured along the CI pipe removed.

Mechanical Joint Fittings and couplings (various sizes and combinations):  
Measurement for fittings and couplings shall be per each.

Permanent Blow –Off Assemblies: Measurement for this item will be per each.

Temporary Blow-Off Assemblies, installed and removed: Measurement for this item will be per each.

Restraining Glands (various sizes): Measurement for these items will be per each.

Push-On Joint Restraining Gaskets (various sizes): Measurement for these items will be per each.

    -inch Transition couplings with    -inch center ring    coating, and  
bolts,    to    (various sizes): Measurement for these items will be per each.

    -inch End Cap Couplings, tapped    -inch with    -inch center ring  
Coating,&    bolts (various sizes): Measurement for these items will be per each.

Concrete Thrust Anchors, in place: Measurement for this item will be per each.

Temporary Thrust Anchors, in place, install and remove: Measurement for this item will be per each. The use of blocking/preformed structures will be at the discretion of the inspector.

Crushed Surfacing Top Course (CSTC) for trench backfill and restoration:  
Measurement for this item shall be per ton. It is the Contractor's responsibility to provide gravel tickets to Tacoma Water's inspector daily as materials are delivered.

Sand for Pipe Bedding of polyethylene encased pipe and PVC pipe: Sand shall be measured per ton and documented by weight tickets to be submitted to the Tacoma Water inspector no later than the end of each work day. The Contractor shall provide copies of sand tickets to the Tacoma Water Construction Inspector daily.

Trench Compaction Test (as directed by the inspector), shall be per each for passing compaction test as per section 7-09.3(11) and 2-03(14)D. Test will be performed by a licensed testing facility with trained personnel in the presence of the Tacoma Water Construction Inspector. Passing test will be based on a current proctor of material used. Costs incurred for any proctor test and failing compaction test are responsibility of the contractor.

Test Holes: No unit of measurement shall apply to the lump sum price for Test Holes.

Force Account: The item shall conform to Section 1-09.6 of the Standard Specifications.

## 7-09.5 Payment

*This section is revised to read:*

“Extra Trench Excavation and Disposal”, per cubic yard.

The unit contract price for “Extra Trench Excavation and Disposal” shall be full pay for all labor, equipment and materials required for excavating and disposal of unsuitable materials. Trench and disposal requirements will be in accordance with WSDOT Standard Specifications as modified in these Special Provisions.

“Trench shoring”, per linear foot.

The single lineal foot measurement will be full pay for both sides of the trench that is shored. Over-excavation to bypass the use of a shoring/shielding is not considered a safety system and no payment will be made.

“\_\_\_\_-inch PVC Pipe, \_\_\_\_\_ Joint ANSI/AWWA. C900 DR14”, per linear foot.

The unit contract price per linear foot for each size of “\_\_\_\_-inch PVC Pipe, \_\_\_\_\_ Joint ANSI/AWWA. C900 DR14” shall be full pay for all work to complete the installation of the water main including but not limited to furnishing, laying, jointing pipe, gaskets, gland/bolt kits, installing detectable marking tape, installing tracer wire, testing, flushing, and disinfecting the pipeline and cleanup.

“Sand Bedding for PVC Pipe”, per Ton

The unit contract price for Sand Bedding for PVC pipe per section 9-03.13 of the WSDOT Standard Specifications.

“\_\_\_\_-inch Ductile Iron Pipe, \_\_\_\_\_ Joint ANSI/AWWA. C151 Special Thickness Class No. 52”, per linear foot.

The unit contract price per linear foot for each size of “\_\_\_\_-inch Ductile Iron Pipe, \_\_\_\_\_ Joint ANSI/AWWA. C151 Special Thickness Class No. 52” shall be full pay for all work to complete the installation of the water main including but not limited to furnishing, laying, jointing pipe, gaskets, gland/bolt kits, as well as the labor and materials for Trench Excavation and Disposal, Crushed Surfacing Top Coarse (CSTC) for trench backfill, compaction of trench backfill, pressure testing, flushing, disinfecting the pipeline and cleanup.

Payment for restoration will be made under the applicable items shown in the Proposal. If no pay items for restoration are included in the Proposal, restoration shall be considered incidental to the work of constructing the water main, and all costs thereof shall be included in the unit contract price for “\_\_\_\_-inch Ductile Iron Pipe, \_\_\_\_\_ Joint ANSI/AWWA. C151 Special Thickness Class No. 52”.

“Removal and disposal of abandoned CI pipe, all sizes”, per linear foot.

The unit contract price per linear foot of “Removal and disposal of abandoned CI pipe, all sizes”: shall be full pay for all work to complete the removal, haul, disposal,

material, and cleanup necessary to properly remove and dispose of CI pipe abandoned as part of this contract.

“\_\_\_\_-inch Ductile Iron Reducer, \_\_\_\_ M.J. with concrete anchor, (dwg. 17-56-1) installed”, per each.

The unit contract price for “\_\_\_\_-inch Ductile Iron Reducer, \_\_\_\_ M.J. with concrete anchor, (dwg. 17-56-1) in place” shall be full pay for all labor, equipment and materials required for furnishing and installing these items including concrete anchor, gaskets and gland/bolts kits.

“\_\_\_\_-inch Ductile Iron (fitting), M.J. \_\_\_\_ installed”, per each.

The unit contract price for “\_\_\_\_-inch Ductile Iron (fitting), M.J. \_\_\_\_ in place” shall be full pay for all labor, equipment and materials required for furnishing and installing these items including gaskets and gland/bolts kits.

“\_\_\_\_-inch Ductile Iron (cap/plug), M.J., tapped \_\_\_\_-inch, installed & removed”, per each.

The unit contract price for “\_\_\_\_-inch Ductile Iron (cap/plug), M.J., tapped \_\_\_\_-inch, installed & removed” shall be full pay for all labor, equipment and materials required for furnishing, installing and removing these items including gaskets gland/bolts kits.

“\_\_\_\_-inch Ductile Iron (Cap/plug), M.J., tapped \_\_\_\_-inch, installed”, per each.

The unit contract price for “\_\_\_\_-inch Ductile Iron (cap/plug), M.J., tapped \_\_\_\_-inch, in place” shall be full pay for all labor, equipment and materials required for furnishing, and installing these items including gaskets gland/bolts kits.

“\_\_\_\_-inch \_\_\_\_\_ Tapping Sleeve, installed”, per each.

The unit contract price for “\_\_\_\_-inch \_\_\_\_\_ Tapping Sleeve” shall be full pay for all labor, equipment and materials required for furnishing, and installing these items including gaskets gland/bolts kits.

“\_\_\_\_-inch Transition Coupling with \_\_\_\_-inch center ring, \_\_\_\_ coating, and \_\_\_\_ bolts, \_\_\_\_ to D.I.”, per each.

The unit contract price for “\_\_\_\_-inch Transition Coupling with \_\_\_\_-inch center ring, \_\_\_\_ coating, and \_\_\_\_ bolts, \_\_\_\_ to D.I.” shall be full pay for all labor, equipment and materials required for furnishing and installing these items.

“\_\_\_\_-inch End Cap Coupling tapped \_\_\_\_-inch, with \_\_\_\_ inch center ring, \_\_\_\_ coating, and \_\_\_\_ bolts,” per each.

The unit contract price for “\_\_\_\_-inch End Cap Coupling tapped \_\_\_\_-inch, with \_\_\_\_ inch center ring, \_\_\_\_ coating, and \_\_\_\_ bolts,” shall be full pay for all labor, equipment and materials required for furnishing and installing these items.

“ \_\_\_\_-inch Blow-Off Assembly, installed”, per each.

The unit contract price bid per each for “ \_\_\_\_-inch Blow-Off Assembly, in place” shall be full pay for all work to install the blow-off assembly per drawing 17-56-1, including but not limited to excavating, backfilling, laying and jointing pipe, pipe and fittings, valve box, meter box, and cleanup. Bid item to include raising valve box to finished grade per drawing 17-56-1, and to include concrete pad and asphalt patch at valve box.

“Temporary \_\_\_\_-inch Blow-Off Assembly, installed & removed”, per each.

The unit contract price bid per each for “Temporary \_\_\_\_-inch Blow-Off Assembly, installed & removed” shall be full pay for all work to install the blow-off assembly per drawing 17-56-1, including but not limited to excavating, backfilling, laying and jointing pipe, pipe and fittings, gate valve, meter box, cleanup and removal.

“ \_\_\_\_-inch Mechanical Joint Restraining Gland, installed”, per each.

The unit contract price for “ \_\_\_\_-inch Mechanical Joint Restraining Gland, in place” shall be full pay for all labor, equipment and materials required for furnishing and installing the specified item.

“ \_\_\_\_-inch Push-On Joint Restraining Gasket, installed”, per each.

The unit contract price for “ \_\_\_\_-inch Push-On Joint Restraining Gasket, in place” shall be full pay for all labor, equipment and materials required for furnishing and installing the specified item.

“Concrete Thrust Anchor, installed”, per each.

The unit contract price for “Concrete Thrust Anchor, in place” shall be full pay for all labor, equipment and materials required for furnishing and installing the specified item.

“Temporary Concrete Thrust Anchor, installed & removed”, per each.

The unit contract price for “Temporary Concrete Thrust Anchor, installed & removed” shall be full pay for all labor, equipment and materials required for furnishing, installing and removing the specified item.

“Crushed Surfacing Top Course for Trench Backfill” per ton.

The unit contract price for “Crushed Surfacing Top Course for Trench Backfill”, shall be full pay for all labor, equipment and materials required for furnishing and installing the specified item including delivery, spreading, compacting and rolling. “Sand for Pipe Bedding”, per ton.

The unit contract price for “Sand for Pipe Bedding” shall be full payment for all labor, equipment, tools, and materials required to load, haul, place the sand, and compaction.

“Trench Compaction Test (as directed by the inspector)”, per each.

The unit contract price for “Trench Compaction Test (as directed by the inspector)” shall be for passing compaction test as per sections 7-09.3(11), and 2-03(14)D. Testing will be performed by a licensed testing company with trained personnel in the presence of the Tacoma Water Construction Inspector, and shall be measured per each passed test.

“Test Holes”, per lump sum.

The lump sum contract price for “Test Holes” shall be full pay for all labor, equipment and materials required to perform the specified excavations including all flagging required to field verify existing utilities. Progress payment will be made based on the percentage completion of the total work encompassed within the lump sum item.

## **END OF SECTION**

### **7-10 Casing Pipe for Water Main under Rail Road Tracks**

*This section is added with the following:*

#### **7-10.3 Description-Steel Pipe Casing**

*This section is added with the following:*

The contractor shall install the water main within a casing pipe to a minimum of 6-feet separation from the top of pipe casing to the top of rail at Sta. 40+07 along E. 64 St. Where it is not possible to secure the above depths, special construction shall be used as approved by Tacoma Rail. Casings shall extend at least 30 feet each side from (measured at right angles to) center line of outside track. The casing is to extend beyond the limit of the railroad right-of-way as required to obtain the specific length.

#### **7-10.4 Material-Steel Pipe Casing**

*This section is added with the following:*

##### **7-10.4(1) Pipe Casing**

*This section is added with the following:*

In each location where a casing pipe is necessary, the casing pipe shall be a continuous length of 10” Steel Pipe, ASTM A36 or ASTM 283 Grade A or Grade B (straight seam only), fabricated sections. If welded joints are selected, the pipe shall have square cut, beveled ends for field welded joints. The minimum yield strength shall be 35,000 psi, and minimum thickness of 0.25 inches. The casing will include casing spacers and end seals for 4-inch DI pipe.

##### **7-10.4(2) Casing Spacers**

*This section is added with the following:*



Casing spacers shall be a minimum of 8-inches wide and shall be fabricated with runner heights to provide a standard carrier pipe configuration. The spacers shall be constructed of reinforced plastic runners. The casing spacers shall be Ranger-2 manufactured by GPT Industries or approved equal. The contractor shall be responsible for sizing insulators to provide required clearance of pipe bells and to properly fit the carrier pipe.

#### **7.10.4(3) End Seals**

*This section is added with the following:*

The end seals shall be rubber seals with stainless steel straps and shall be Model W by GPT Industries or approved equal.

#### **7-10.5 Measurement**

*This section is added with the following:*

Measurement for the continuous length of 10-inch Steel Casing Pipe, ASTM A36 or ASTM 283 Grade A or Grade B (straight seam only), fabricated sections (including casing spacers and end seals) shall be lump sum, installed on water main.

#### **7-10.6 Payment**

*This section is added with the following:*

“10-inch Steel Casing Pipe ASTM A36 or ASTM 283 Grade A or Grade B (straight seam only), fabricated sections of continuous length, minimum wall thickness of 0.25-inches, including end seals, casing spacers and installation are incidental”, lump sum.

The unit contract price for “10-inch Steel Casing Pipe ASTM A36 or ASTM 283 Grade A or Grade B (straight seam only), fabricated sections of continuous length, minimum wall thickness of 0.25-inches, including end seals, casing spacers and installation are incidental” shall be full pay for all labor, equipment and materials to provide a fully functional casing pipe in place as shown on the plans. The item shall include all costs for installing and assembling all components necessary to install water main within casing pipe to the line and grade shown in the plans. Costs for Trench excavation and Backfill, CSTC for trench backfill, and compaction of trench backfill, to install the casing pipe shall be included in the unit contract price for this item.

**END OF SECTION**

## 7-12 VALVES FOR WATER MAINS

### 7-12.4 Measurement

*These sections are supplemented with the following:*

Measurement for \_\_\_\_\_-inch Tapping Gate Valve, M.J., ANSI/AWWA, C509/515, with C.I. Valve Box, will be per each.

Measurement for \_\_\_\_\_-inch Gate Valve, M.J., ANSI/AWWA, C509/515, with C.I. Valve Box, will be per each.

Measurement for \_\_\_\_\_-inch Butterfly Valve, M.J., ANSI/AWWA, C504, with C.I. Valve Box, will be per each

### 7-12.5 Payment

*These sections are supplemented with the following:*

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

“\_\_\_\_\_ -inch Gate Valve, M.J., ANSI/AWWA, C509/C515, with C.I. Valve Box”, per each.

The unit bid price for “\_\_\_\_\_ -inch Gate Valve, M.J., ANSI/AWWA, C509/C515, with C.I. Valve Box, in place, per each” shall be full pay for all labor, equipment and materials required to furnish and install valve. Bid item to include raising valve box to finished grade per drawing 17-56-1, and to include concrete pad and asphalt patch at valve box.

“\_\_\_\_\_ -inch Butterfly Valve, M.J., ANSI/AWWA, C504, with C.I. Valve Box, per each.

The unit bid price for “\_\_\_\_\_ -inch Butterfly Valve, M.J., ANSI/AWWA, C504, with C.I. Valve Box” shall be full pay for all labor, equipment and materials required to furnish and install valve. Bid item to include raising valve box to finished grade per drawing 17-56-1, and to include concrete pad and asphalt patch at valve box.

“\_\_\_\_\_ -inch Tapping Gate Valve, M.J., ANSI/AWWA, C509/C515, with C.I. Valve Box”, per each.

The unit contract price for “\_\_\_\_\_ -inch Tapping Gate Valve, M.J., ANSI/AWWA, C509/C515, with C.I. Valve Box, in place” shall be full pay for all labor, equipment and materials required for furnishing, installing and tapping. Bid item to include raising valve box to finished grade per drawing 17-56-1, and to include concrete pad and asphalt patch at valve box.

## END OF SECTION

## **7-14 HYDRANTS**

### **7-14.3(1) Setting Hydrants**

*The second paragraph is revised to read:*

All hydrants shall be set on concrete blocks as shown on standard detail 17-56-1. The hydrant barrel drain shall waste into a pit of porous gravel material meeting specification 9-03.12(5), and situated at the base of the hydrant as shown on standard detail 17-56-1.

*This section is supplemented with the following:*

Hydrant installation will conform to AWWA and DIPRA standards, and drawing 17-56-1. No barrel extensions will be approved for new installations. The Contractor is responsible for ensuring the proper bury of hydrant for grade is installed.

### **7-14.3(2)A Hydrant Restraints**

*This section is supplemented with the following:*

Only approved restraining glands will be installed for hydrant restraints, unless shackle rods are specified. No poured concrete thrust block will be placed on the back side of the fire hydrants. If the hydrant lateral is longer than one full length of pipe, either mechanical joint (MJ) pipe, approved push-on joint restraining gaskets or a ductile iron solid sleeve with restraining glands will be installed to ensure correct location and restraint of hydrant.

### **7-14.3(6) Hydrant Extensions**

*This section is revised to read:*

No hydrant barrel extensions are approved on new installations.

### **7-14.3(7) Removing Abandoned Hydrants**

*This section is added with the following:*

The contractor shall remove existing abandoned fire hydrants which were taken out of service by this project or as noted to be removed on plans. Abandoned fire hydrants shall be removed at the foot, laterals plugged and fire hydrants delivered to the Tacoma Water Storeroom at South 35<sup>th</sup> Street and Union Avenue. All labor and equipment costs are incidental to the contract.

## **7-14.4 Measurement**

*This paragraph is supplemented with the following:*

Measurement of "6-inch Hydrant, M.J., \_\_\_\_-ft bury, with \_\_\_\_-inch \_\_\_\_\_ Threads & \_\_\_\_-inch Quick Connect Coupling", will be made per each.

#### **7-14.5 Payment**

*This paragraph is supplemented with the following:*

“6-inch Hydrant, M.J., \_\_\_\_-ft bury, with \_\_\_\_-inch \_\_\_\_\_ Threads & \_\_\_\_-inch Quick Connect Coupling”, per each.

The unit bid price for “6-inch Hydrant, M.J., \_\_\_\_-ft bury, with \_\_\_\_-inch \_\_\_\_\_ Threads & \_\_\_\_-inch Quick Connect Coupling” shall be full pay for all labor, equipment and materials required for furnishing and installing the hydrant including drain rock and hydrant block. Restraining glands, lateral pipe, tee, and valve will be paid under separate bid items.

#### **7-15 SERVICE CONNECTIONS**

*This section is supplemented with the following:*

There are **81** water service transfers throughout the project. New mains will be tested and sampled in sections so Tacoma Water can commence with service transfers. Following the successful completion of sampling, the Contractor shall anticipate down time waiting for Tacoma Water crews to complete service transfers. The Contractor shall anticipate one working day per service for Tacoma Water crews to complete service transfers. All costs shall be included in the various bid items in the proposal and no extra compensation will be made to the Contractor for down time due to work by City forces. No time will be charged towards the contract's time of completion while services are transferred.

Please note; Service transfer work by Tacoma Water will not commence until such time as the section of water main has been placed into service and the trench has been successfully backfilled, as demonstrated through receipt of successful compaction test results for that portion of water main to be placed in service.

### **END OF SECTION**

#### **7-17 SANITARY SEWERS**

##### **7-17.3 Construction Requirements**

*This section is supplemented with the following:*

Sanitary sewers may be encountered at various locations throughout this project. Prior to the start of the sanitary sewer repair, the Contractor shall notify the Tacoma Water Inspector. C900 PVC shall be used on sanitary repairs. The repair of the sewer shall be made three feet outside of the water main trench or to the limits and material standards of Washington State Department of Ecology, Criteria for Sewer Works Design, section C1-9.1.4 If the sewer pipe falls into the unusual condition as specified by the Washington State Department of Ecology, Criteria for Sewer Works Design, sections C1-9.1.4 Unusual Conditions (Perpendicular), sub-section A, the sewer pipe shall comply with the requirements of a full length of pipe centered over the water main to the material standards of Table C1-4. No additional compensation shall be made for the extended connection and material. Mechanical couplings (Romac or equivalent) shall be installed at both ends of the sewer restoration forming a rigid connection between the

new and existing pipe. Rigid PVC slip couplings for PVC pipe and Romac mechanical style for concrete pipe only. Repair/replacement/restoration will be at the inspector's discretion and in accordance with Washington State Department of Ecology, Criteria for Sewer Works Design, sections C1-8 and C1-9.

#### **7-17.4 Measurement**

*This section is revised to read:*

"Storm, Sanitary, and Side Sewer Restoration" will be measured per each.

#### **7-17.5 Payment**

*This section is revised to read:*

"Storm, Sanitary, and Side Sewer Restoration", per each.

The unit bid price for "Storm, Sanitary, and Side Sewer Restoration", includes all labor and materials required to remove and replace storm, sanitary, and side sewers. This is a per each bid item that includes all costs but is not limited to pipe, fittings, pea gravel, labor, and equipment, etc. to repair sewers.

### **END OF SECTION**

## **7-18 SIDE SEWERS**

#### **7-18.3 Construction Requirements**

*This section is supplemented with the following:*

Side sewers may be encountered at various locations throughout this project. Prior to the start of the sanitary side sewer repair, the Inspector and/or Contractor shall notify Tacoma Public Works Inspector. C900 PVC shall be used on side sewer repairs. The repair of the side sewer shall be made three feet outside of the water main trench or to the limits and material standards of Washington State Department of Ecology, Criteria for Sewer Works Design, section C1-9.1.4 If the side sewer pipe falls into the unusual condition as specified by the Washington State Department of Ecology, Criteria for Sewer Works Design, sections C1-9.1.4 Unusual Conditions (Perpendicular), sub-section A, the side sewer pipe shall comply with the requirements of a full length of pipe centered over the water main to the material standards of Table C1-4. No additional compensation shall be made for the extended connection and material. Mechanical couplings (Romac or equivalent) shall be installed at both ends of the sewer restoration forming a rigid connection between the new and existing pipe. Rigid PVC slip couplings for PVC pipe and Romac mechanical style for concrete pipe only. Repair/replacement/restoration will be at the inspector's discretion and in accordance with Washington State Department of Ecology, Criteria for Sewer Works Design, sections C1-8 and C1-9.

#### **7-18.4 Measurement**

*This section is revised to read:*

“Storm, Sanitary, and Side Sewer Restoration”, will be measured per each.

#### **7-18.5 Payment**

*This section is revised to read:*

“Storm, Sanitary, and Side Sewer Restoration”, per each.

The unit bid price for “Storm, Sanitary, and Side Sewer Restoration”, includes all labor and materials required to remove and replace storm, sanitary, and side sewers. This is a per each bid item that includes all costs but is not limited to pipe, fittings, pea gravel, labor, and equipment, etc. to repair sewers.

### **END OF SECTION**

## **8-01 EROSION CONTROL AND WATER POLLUTION CONTROL**

### **8-01.3(1)B Erosion and Sediment Control (ESC) Lead**

*This section is revised to read:*

The Contractor shall identify the ESC Lead at the preconstruction meeting. The ESC Lead shall have, for the life of the contract, a current Certificate of Training in Construction Site Erosion and Sediment Control from a course approved by WSDOT’s Statewide Erosion Control Coordinator.

The ESC Lead shall implement the Temporary Erosion and Sediment Control (TESC) plan. Implementation shall include, but not limited to:

1. Installing and maintaining all temporary erosion and sediment control Best Management Practices (BMPs) included in the TESC plan to assure continued performance of their intended function. Damaged or inadequate TESC BMPs shall be corrected immediately.
2. Inspecting all on-site erosion and sediment control BMPs at least once every five working days and each working day there is a runoff event. A TESC Inspection Report shall be prepared for each inspection and shall be included in the TESC file. A copy of each TESC Inspection Report shall be submitted to the Engineer no later than the end of the next working following the inspection. The report shall include, but not limited to:
  - a. When, where and how BMPs were installed, maintained, modified, and removed;
  - b. Observations of BMP effectiveness and proper placement;
  - c. Recommendations for improving future BMP performance with upgraded or replacement BMPs when inspections reveal TESC plan inadequacies.
3. Updating and maintaining a TESC file on site includes, but not limited to:
  - a. TESC Inspection Reports
  - b. Temporary Erosion and Sediment Control (TESC) plan narrative.

- c. National Pollutant Discharge Elimination System construction permit (Notice of Intent)
- d. Other applicable permits.

Upon request, the file shall be provided to the Engineer for review.

#### **8-01.3(1)C Ground Water**

*This section including title is revised to read:*

##### **8-01.3(1)C Water Management**

###### **1. Ground Water**

When ground water is encountered in an excavation, it shall be treated and discharged as follows:

- A. When the ground water conforms to Water Quality Standards for Surface Waters of the State of Washington (Chapter 173-201A WAC), it may bypass detention and treatment facilities and be routed directly to its normal discharge point at a rate and method that will not cause erosion.
- B. When the turbidity of the ground water is similar to the turbidity of the site runoff, the ground water may be treated using the same detention and treatment facilities being used to treat the site runoff and then discharged at a rate that will not cause erosion.
- C. When the turbidity is greater than the turbidity of the site runoff, the ground water be treated separately until the turbidity is similar to or better than the site runoff, then may be combined and treated as in B, above.

###### **2. Process Water**

All water generated on site from construction or washing activities that is more turbid than site runoff shall be treated separately until turbidity is the same or less than the site runoff, and then may be combined and treated as in 1B, above. Water may be infiltrated upon approval of the Engineer.

###### **3. Offsite Water**

The Contractor shall, prior to disruption of the normal watercourse, intercept the offsite storm water and pipe it either through or around the project site. This water shall not be combined with onsite storm water and shall be discharged at its pre-construction outfall point in such a manner that there is no increase below the site.

The method for performing this work shall be provided by the Contractor for the Engineer's review.

### **8-01.3(8) Street Cleaning**

*This section is revised to read:*

Self-propelled pickup and vacuum street sweepers shall be used, whenever required by the Engineer to prevent transport of sediment and other debris off the project site. Street sweepers without vacuums will not be allowed. Street sweepers shall be designed and operated to meet air quality standards.

Street washing with water shall not be permitted.

### **8-01.4 Measurement**

*The sixth sentence is replaced with the following:*

Self-propelled pickup and vacuum street sweepers shall be used, whenever required by the Engineer to prevent transport of sediment and other debris off the project site. Street sweepers without vacuums will not be allowed. Street sweepers shall be designed and operated to meet air quality standards.

### **8-01.5 Payment**

*The tenth sentence is replaced with the following:*

“Street cleaning with Self-propelled pickup and vacuum street sweeper equipment”, per hour.

The unit bid price for “Street cleaning with self-propelled pickup and vacuum street sweeper equipment” will be for a self-propelled pickup and vacuum street sweeper and operator.

## **END OF SECTION**

## **8-02 ROADSIDE RESTORATION**

### **8-02.3 Construction Requirements**

#### **8-02.3(4) Topsoil**

*This section is supplemented with the following:*

A minimum of 6-inches of Topsoil Type A shall be placed in areas of roadside restoration or as directed by the Construction Inspector. It shall be placed in preparation for the Tacoma Public Utilities Landscaping crew to complete the roadside restoration.



### 8-02.3(4)A Topsoil Type A

*This section is supplemented with the following:*

**Topsoil A shall meet the following specification:** Planting soil shall consist of a natural sandy clay loam, sandy loam, or loamy sand humus-bearing soil containing no less than 55-percent or more than 15-percent organic matter as determined by the loss of ignition of oven-dried samples. The allowable pH range shall be 5.0 to 7.0. The soil shall be natural friable surface soil free of any material toxic to the plant growth; from subsoil; and from stones and other debris which would not pass through a 1-inch square opening. The maximum allowable percent of gravel retained on a 1/4-inch sieve and other foreign materials shall not exceed 10-percent by volume. The percentage of the soil passing through the following sieves shall be:

<u>U.S. No. Sieve</u>	<u>Min.</u>	<u>Max.</u>
#200	5	40
#120	20	60
# 60	50	100

This planting soil shall be placed to a maximum depth of 6-inches in all areas to be seeded as designated on the plans or as directed by the project manager.

Soil amendments shall be either organic or inorganic materials; such as: thoroughly soaked peat moss, fibrous sedge peat, woody or reed type peat, sludge, manure, well-rotted sawdust, or vermiculite, manufactured or processed for use in altering structural and textural properties of soil. Peat shall contain less than 20-percent of ash by dry weight. The manure shall be well decomposed cow waste and must be free of any material toxic to plant growth, free from noxious weed seeds and with a minimum of straw litter. When sawdust is used, either 4.5 pounds of ammonium sulfate or 3 pounds of ammonium nitrate shall be added to the topsoil mixture per cubic yard of sawdust. Any manufactured or processed soil amendment material shall pass through a 1/4-inch sieve, shall contain no substances harmful to plant growth, and shall be subject to approval by the project manager. All inorganic material containers shall clearly indicate both the type of amendment material and the volume. Soil amendments shall be either organic or inorganic materials; such as: thoroughly soaked peat moss, fibrous sedge peat, woody or reed type peat, sludge, manure, well-rotted sawdust, or vermiculite, manufactured or processed for use in altering structural and textural properties of soil. Peat shall contain less than 20-percent of ash by dry weight. The manure shall be well decomposed cow waste and must be free of any material toxic to plant growth, free from noxious weed seeds and with a minimum of straw litter. When sawdust is used, either 4.5 pounds of ammonium sulfate or 3 pounds of ammonium nitrate shall be added to the topsoil mixture per cubic yard of sawdust. Any manufactured or processed soil amendment material shall pass through a 1/4-inch sieve, shall contain no substances harmful to plant growth, and shall be subject to approval by the project manager. All inorganic material containers shall clearly indicate both the type of amendment material and the volume.

## **8-22 PAVEMENT MARKING**

### **8-22.1 Description**

*This section is supplemented with the following:*

The bid item for traffic lane markings in the Tacoma Water main bid proposal pertains only to the area in the vicinity of E. 64<sup>th</sup> Street, between Pacific Ave. and McKinley Ave. water main installation work. Installation of traffic lane markings will re-establish pre-construction markings.

### **8-22.3 Construction Requirements**

*This section is supplemented with the following:*

The Contractor shall replace existing pavement markings that are disturbed by water main construction. Markings shall be equivalent to that existing prior to construction and shall include but not be limited to crosswalk marking, single and double yellow paint line, reflective lane markers, plastic traffic arrows, plastic "ONLY" lettering. All traffic markings shall conform to the City of Tacoma standards.

### **8-22.4 Measurement**

*This section is supplemented with the following:*

Traffic lane markings will be measured by lineal foot bid item.

### **8-22.5 Payment**

*This section is supplemented with the following:*

"Traffic Lane Markings", per lineal foot.

The contract price per lump sum for "Traffic Lane Markings" shall be full pay for re-establishing all lane striping, stop lines, raised traffic markers (buttons) and turns arrows and includes all labor and material (if measurement and payment are by lineal foot, revise included items).

**END OF SECTION**

## **9-03 AGGREGATES**

### **9-03.21 Recycled Material**

*This section is supplemented with the following:*

No recycled material shall be used for trench backfill of water main.

**END OF SECTION**

## **9-30 WATER DISTRIBUTION MATERIALS**

*The first paragraph is revised to read:*

This specification addresses pipe and appurtenances 24-inch in diameter and smaller. Water distribution material incorporated in the work shall be new. Prior to construction, the Contractor shall submit 3 copies of material submittals to the Engineer for approval.

### **9-30.1(1) Ductile Iron Pipe**

*This section is revised to read:*

Ductile iron pipe shall be centrifugally cast and meet the requirements of AWWA C151. Ductile iron pipe shall have a cement mortar lining meeting the requirements of AWWA C104. Ductile iron pipe shall be a minimum of Special Thickness Class 52 and manufactured by the following:

- Tyton Joint:
  - McWane Cast Iron Pipe Company
  - Pacific States Cast Iron Pipe Company
  - U.S. Pipe and Foundry Company
- Fastite Joint:\*
- American Cast Iron Pipe Company
- Mechanical Joint:
  - McWane Cast Iron Pipe Company
  - American Cast Iron Pipe Company
  - Pacific States Cast Iron Pipe Company
  - U.S. Pipe and Foundry Company

Nonrestrained joints shall be rubber gasket, push-on type, or mechanical type meeting the requirements of AWWA C111.

Restrained joints shall be as specified in Section 9-30.2(6).

*\*Note: When plans and specifications require push-on joints to be restrained with nitrile gaskets, only American Ductile Iron Pipe and Fastite Fast-Grip® restraining gaskets are allowed.*

### **9-30.1(3) Rubber Gaskets**

*This section is added with the following:*

All gaskets furnished with pipe shall be styrene butadiene rubber (SBR), unless specified otherwise by the project engineer. When deemed necessary, "Nitrile" (NBR) gaskets will be required. When NBR gaskets are required they must be color-coded and/or marked in color so as to be easily identifiable as nitrile. When nitrile push-on joint restraining gaskets are required, they shall be Fastite Fast-Grip® manufactured by American Cast Iron Pipe Company or approved equal. All gaskets must conform to ANSI/AWWA C111. The gasket requirements for the specific project will be indicated on the face of the plan for the project.

### **9-30.2 Fittings**

*This section is revised to read:*

Ductile iron flanges and flanged ductile iron spool pieces shall be in accordance with ANSI/AWWA C 115.

Gaskets for steel flanged joints shall be cloth inserted rubber made by Johns-Manville, JM-109 or approved equal.

Unless specified otherwise, all T-head bolts and nuts supplied for mechanical joint fittings, valves, sleeves, couplings, hydrants, tapping sleeves, etc., shall be made of high-strength, low alloy steel, conforming to ANSI/AWWA C111 (Corrosion-Resistant Steel "Cor-Ten"). All other bolts and nuts shall be hot dipped galvanized or electroplated and conform to ASTM A 307, Grade B.

All bolts shall be of sufficient length that, when assembled and tightened to proper torque, a minimum of one thread will extend outside of the nut.

Tie rods and nuts for hydrant laterals, etc., shall be made of high strength, low alloy steel conforming to ANSI/AWWA C111 ("Cor-Ten"), unless specified otherwise in the plans or Special Provisions.

All ductile iron fittings shall conform to the latest ANSI/AWWA C110 Specifications or ANSI/AWWA C153 for Mechanical Joint Compact Ductile Iron Class 350 fittings. All fittings shall have either cement-mortar lining conforming to ANSI/AWWA C104 or fusion bonded epoxy internal lining per ANSI/AWWA C153. Mechanical joint glands supplied with the above fittings shall be ductile iron in accordance with the above specifications. The mechanical joint fittings/pipe shall be installed and the bolts tightened in the sequence and to the torque specified in DIPRA published by the Ductile Iron Pipe Research Association.

### **9-30.2(6) Restrained Joints**

*This section is supplemented with the following:*

Mechanical joint restraint shall be incorporated in the design of the follower gland and shall include a restraining mechanism which, when actuated, imparts multiple wedging action against the pipe, increasing its resistance as the pressure increases. Joint flexibility shall be maintained after burial. Glands shall be manufactured of ductile iron conforming to ASTM A 536-80. Dimensions of the gland shall be such that it can be used with the standardized mechanical joint bell and tee-head bolts conforming to ANSI/AWWA C111/A21.11 and ANSI/AWWA C153/A21.53. Twist-off nuts, sized same as tee-head bolts, shall be used to insure proper actuating of restraining devices. The mechanical joint restraint device shall have a working pressure of at least 250-psi with a minimum safety factor of 2:1 and shall be manufactured by:

- EBAA Iron, Inc., MEGALUG,
- Romac "RomaGrip"
- Uniflange Series 1400
- Tyler Union "TUFGRIP Series 1000"
- or approved equal

Tyton joint restraint shall be made with Field-Lok 350® restraining gaskets or approved equal. Fastite joint restraint shall be made with Fast-Grip® restraining gaskets or approved equal.

**9-30.2(7) Bolted, Sleeve Type Couplings for Plain End Pipe**

*The first two sentences in this section are revised to read:*

Bolted, sleeve-type couplings, reducing couplings, or transition couplings will be mechanical style flexible coupling meeting AWWA C219, with minimum 7 inch center ring, epoxy coating, and stainless steel nuts and bolts.

End Cap Couplings will be mechanical style flexible coupling meeting AWWA C219, with minimum 7 inch center ring, epoxy coating, stainless steel nuts and bolts, and tapped 2-inch.

Couplings will be proper to type of pipe (e.g. D.I to C.I.)

**9-30.3(1) Gate Valves (3 inches to 16 inches)**

*This section is revised to read:*

The end flanges of flanged gate valves shall conform in dimensions and drilling to the Standard ANSI B16.1 for cast iron flanges and flanged fittings, Class 125 unless specifically provided otherwise in plans or supplementary specifications. The bolt holes shall straddle the vertical centerline.

All gate valves shall be resilient seat and shall comply with the ANSI/AWWA standard as listed below:

All Resilient Seat Gate Valves shall conform to the latest revision of AWWA Standard C-509/515 and be UL listed, FM approved. They shall be as manufactured by:

- American Flow "Series 2500"
- AVK-series 25 or 65
- Clow model "2638, 2639 and 2640"
- Kennedy model "KS-FW" and "KS-RW"
- M&H: Style "4067"
- M&H: Style "7000 series"
- Mueller Style "2360"
- NIBCO 619-RW Series
- US Pipe "Metroseal 250"
- East Jordan "Flowmaster"
- or approved equal

All Resilient Seat Gate Valves shall meet the following requirements:

- a. Shall have the body and bonnet coated with a fusion bonded epoxy coating meeting all the application and performance requirements of AWWA C-550.

b. All gate valve ends shall be as shown on the project drawing and conform to the applicable ANSI/AWWA standard. Flanged ends shall conform to ANSI B16.1 class 125 or C110 A21.10. Mechanical joint and push-on joint must conform to ANSI/AWWA C111, A21.11.

c. All gate valves, 16-inch and larger, shall be horizontal stem, equipped with machine cut cast steel gears, extended type grease case, and bypass, all in accordance with AWWA Standard C509/515.

d. All bonnet and packing nuts and bolts shall be stainless steel.

### **9.30.3(3) Butterfly Valves**

*This section is revised with the following:*

All butterfly valves shall conform to ANSI/AWWA C504 for Rubber Seated Butterfly Valves, Class 150B. All nuts and bolts shall be stainless steel.

All butterfly valves shall be manufactured by:

- Henry Pratt "Groundhog"
- M&H/Clow "4500"
- Mueller "Linesal III"
- Or approved equal

### **9.30.3(4) Valve Boxes**

*This section is revised to read:*

Cast iron valve boxes and lids shall be as indicated on the attached Tacoma Water Drawing No. 17-56-1. All buried valves shall be provided with a valve box and lid with an extension of cast iron soil pipe as necessary. The Contractor shall maintain the location and provide access to all valves within the project. No valve shall remain buried during construction.

### **9-30.3(8) Tapping Sleeve and Valve Assembly**

*The fourth sentence is revised to read:*

Valves specifically designed for tapping meeting the requirement of AWWA C500, and valves meeting the requirements of AWWA C509/C515 will be permitted. All nuts and bolts shall be stainless steel.

*The sixth sentence is revised to read:*

Tapping sleeves shall be ductile iron, mechanical joint type or the fabricated steel type, whichever is specified in the bid proposal.

*This section is supplemented with the following:*

The fabricated steel sleeves shall have epoxy coating and stainless steel bolts and shall be:

- Model JCM 412 manufactured by JCM Industries\*
- Model JCM 414 manufactured by JCM Industries
- Model FTS 420 manufactured by Romac Industries, Inc\*
- SST III manufactured by Romac Industries, Inc.

- Smith Blair Style 623
- or approved equal

\*Models JCM 412 and FTS 420 will only be allowed when tapping ductile iron pipe and the size of the tap is **less than half** of the size of the pipe being tapped.

Ductile iron, mechanical joint sleeves shall be:

- Model H-615 manufactured by Mueller Co.
- Model H-619 manufactured by Mueller Co.
- or approved equal.

### 9-30.5 Hydrants

*This section is revised to read:*

Fire hydrants furnished under these Specifications shall conform to the ANSI/AWWA C502, Specifications for Dry-Barrel Fire Hydrants, with the following limitations and exceptions, and be installed per Tacoma Water Drawing 17-56-1.

- Drawings** - Drawings of adequate size showing principal dimensions, material and finish shall be furnished with the bid for fire hydrants not listed below as acceptable.
- Make –**
  - Clow “Medallion”
  - Kennedy “Guardian K81D”
  - M&H 129 S
  - Mueller “Super Centurion 250”
  - U.S. Pipe “M-94”
  - Waterous “Pacer/WB67-250, Tacoma”
- Capacity** - Standard size - two-hose and one-pumper nozzle.
- Size** - Standard size shall be 5-1/4-inch main valve with 6-inch inlet bell. All hose nozzles shall be 2-1/2 inches. Unless otherwise indicated in the special Provisions and/or the Drawings, all pumper nozzles and quick connect fittings shall be as specified on standard drawing 17-56-1.
- Length** - Contractor shall verify proper depth of bury of fire hydrant prior to installation.
- Hydrant Inlet** - All hydrants shall be provided with mechanical joint inlet.
- Operating Mechanism** - All moving contact surfaces shall be bronze on bronze or bronze on iron or steel as may be approved by the Superintendent. The hydrants shall have the main valve seat threaded into a bronze sub-seat in the shoe of the hydrant to permit easy removal of the main valve seat. The bronze sub seat shall be; threaded into the shoe of the fire hydrant, or the sub seat shall be attached to the shoe of the fire hydrant independently from the barrel to shoe connection.
- Direction of Opening** - All hydrants shall open by turning the operating nut to the left (counter-clockwise).
- Hydrant Barrels** - All hydrant barrels shall have a flange located at least 2 inches above the finished grade line and flanged extension sections shall be available in increments of 6 inches.

- j. **Operating Nuts for Stem and Nozzle Caps** - The operating stem and cap nut shall be pentagonal in shape. The pentagon shall measure 1.35 inches from the point to the flat, at the base of the nut and 1.23 inches at the top. The faces shall be tapered uniformly and the height of the nut shall not be less than 1.0 inches. The point to the flat dimension shall be measured to the theoretical point where the faces would intersect were there no rounding off of the corners. All nozzles shall be fitted with cast iron threaded caps with operating nut of the same design and proportions as the stem nut. Caps shall be threaded to fit the corresponding nozzles and shall be fitted with suitable gaskets for positive water tightness.
- k. **Fire Hydrant Quick Connect Coupling** – The fire hydrant quick Connect Coupling (aka Storz Coupling) shall be in compliance with the latest version of “NFPA 1963, for non-threaded Metal-Faced Hydrant Connections”. The size of the Quick Connect Coupling and hydrant pumper nozzle threads will be as shown on standard drawing 17-56-1.
- l. **Nuts and Bolts**- All nuts and bolts below ground level shall be stainless steel.

### 9-30.5(2) Hydrant Dimensions

*This section is replaced with the following table:*

Hydrant connection D.I. Pipe ins. dia.	6-inch
Standard, minimum dia.	6-7/8 inch
Length of 4.5 ft. bury, hydrant from bottom of hydrant connection to sidewalk ring.	4 feet, 8 inches
Valve opening minimum dia.	5-1/4 inches
Hose Nozzles-number and size	2 - 2-1/2-inch
Thread (Nat. Board Fire Underwriters)	7-1/2 per inch
Outside dia. Finished	3-1/16 inch
Dia. at root of thread	2.8715 inch
Pattern of thread	60° V thread
Total length of threaded male Nipple	1-inch
Pumper Nozzles-number and size	1 - 4-inch
Thread, outside dia. finished (with .02" cut off top)	5.09-inch
Dia. at root of thread (with .02" left in valley)	4.74-inch
Threads (Tacoma Std.)	4 per inch
Pattern of thread-modified	60° V thread
Total length of threaded male nipple	1-1/8-inch

### 9-30.5(3) Hydrant Extensions

*This section is revised to read:*

No hydrant barrel extensions are approved on new installations

### 9-30.6 Water Service Connections

*This section does not apply to the contract.*



## **9-34 Pavement Marking Material**

### **9-34.3(2) Type B- Pre formed Fused Thermoplastic**

Type B material consists of mixture of pigment, fillers, resins and glass beads that is factory produced in sheet form. The material is applied by heating the pavement and top heating the material. The material shall contain intermixed glass beads. The material shall conform to AASHTO M249, with the exception of the relevant differences for the materials being applied in the pre-formed state and the following:

**Resin-** The resin shall be alkyd or hydrocarbon

The sample material submitted for approval shall be fused to a suitable substrate prior to performing the following tests.

#### ***Retroreflectance- ASTM E1710***

The fused samples shall have a minimum initial coefficient of retroreflective luminance of 250 mcd m<sup>-2</sup>. Lx-1 for white and 175 mcd.m<sup>-2</sup> .lx-1 for yellow in accordance with ASTM E1710 when measured with a 30-meter retroreflectometer. WSDOT will measure retroreflectivity for compliance with a Delta LTL-X retroreflectometer.

#### ***Skid Resistance- ASTM E303***

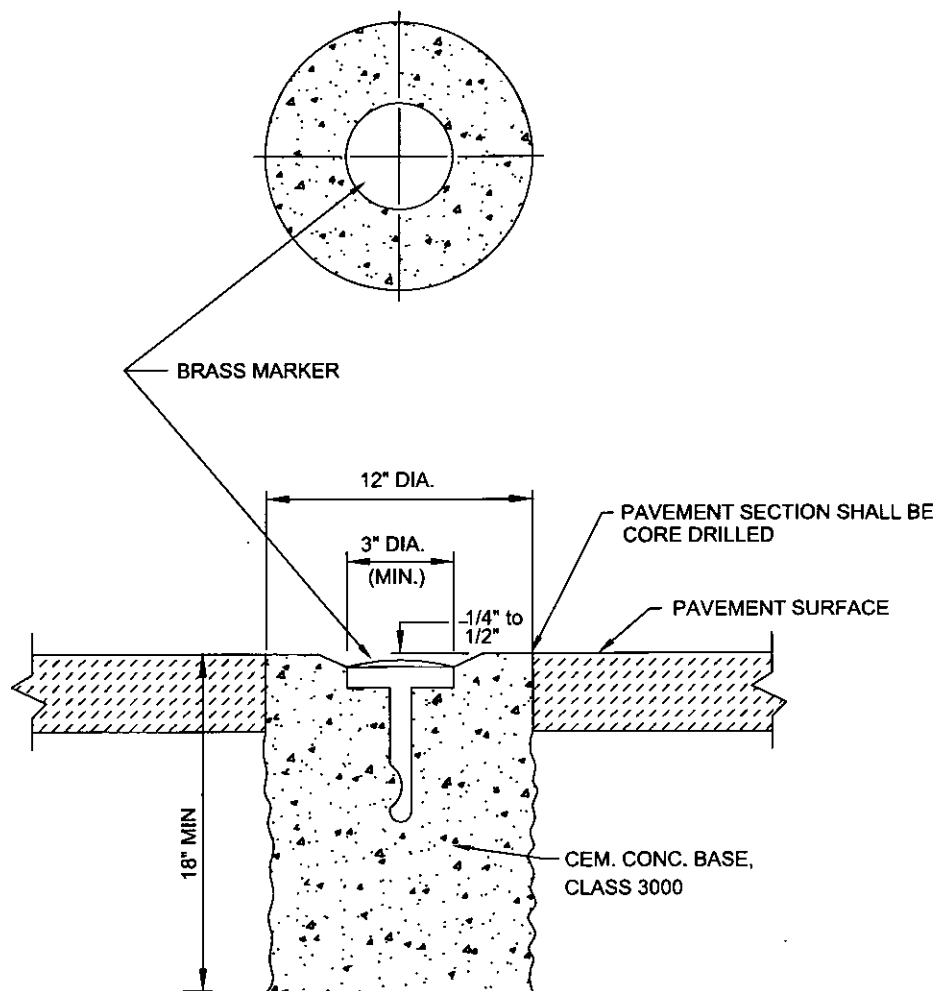
45 BPN units minimum

The blue color shall match Federal Standards 595, color number 35180, and the tolerance of variation shall match that shown in the FHWA "Highway blue color tolerance chart".

The red color shall match Federal Standard 595, color number 11136, and the tolerance of variation shall match that shown in the FHWA " Highway Red Color Tolerance Chart".

**END OF SECTION**

**APPENDIX A**  
**CITY OF TACOMA AND**  
**WSDOT STANDARD PLANS**



NOTES:

1. Concrete base shall be poured in place. Hand mixed concrete is prohibited. Concrete base need not be formed.
2. Notice to surveyors: any monument set in the City of Tacoma must bear the land surveyor number of the surveyor setting the monument. Monuments set as part of an approved plat are exempt.
3. The surveyor is to supply the City of Tacoma with a copy of the calculations used to determine all monument positions before the monuments are set.
4. Brass marker for City of Tacoma funded projects will be supplied by the City, all other brass markers to be supplied by the contractor.
5. Monument must be magnetically locatable.
6. Prior to removing or destroying a monument, the surveyor or engineer shall apply for a permit from the Department of Natural Resources in accordance with WAC 332-120.

CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

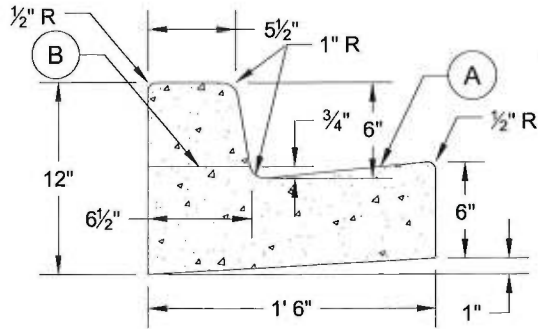
*James Parney* 09 JUN 2009  
CITY ENGINEER DATE

POURED MONUMENT

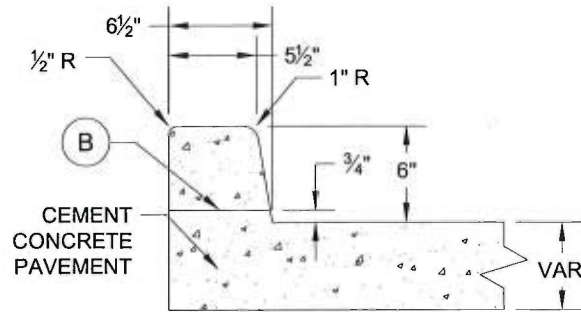
STANDARD PLAN NO. SU-01

**NOTES:**

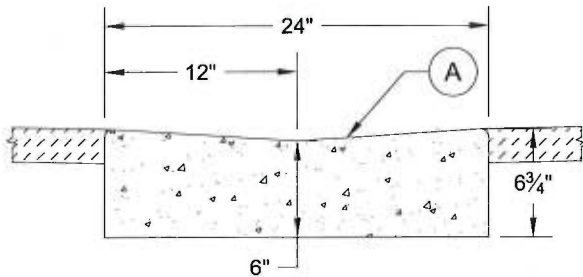
- (A) When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement. The height of the curb shall be 6", unless otherwise shown on plans.
- (B) Flush with gutter pan at curb ramp entrance or  $\frac{3}{4}$ " vertical lip at driveway entrance.



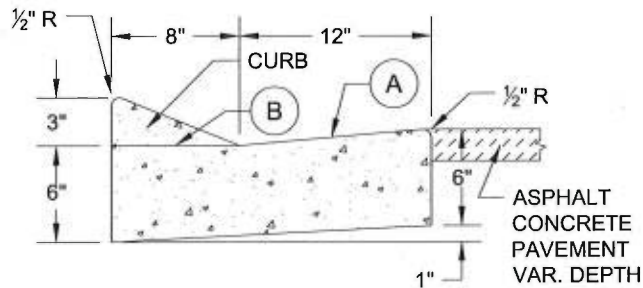
## CEMENT CONCRETE TRAFFIC CURB & GUTTER



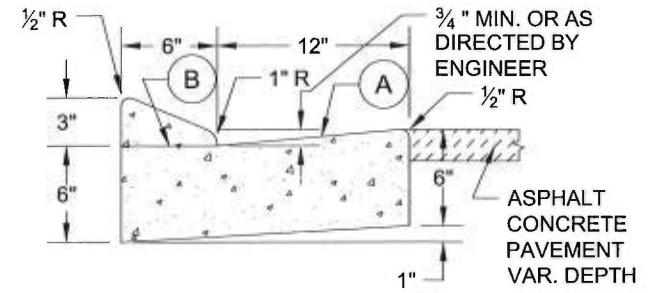
**INTEGRAL CEMENT**  
**CONCRETE TRAFFIC CURB**



## 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

N/A.

TACOMA POWER

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**GMS**

## ENVIRONMENTAL SERVICES

NA

TACOMA WATER



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CITY ENGINEER

8/16/16

DATE \_\_\_\_\_

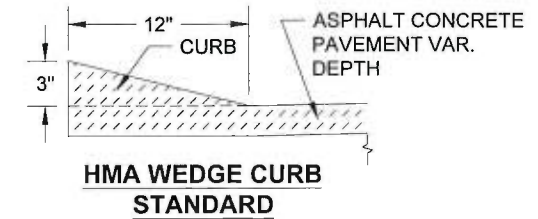
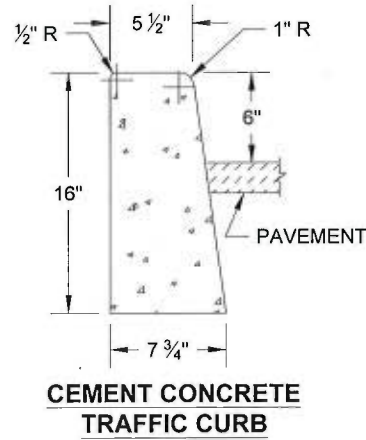
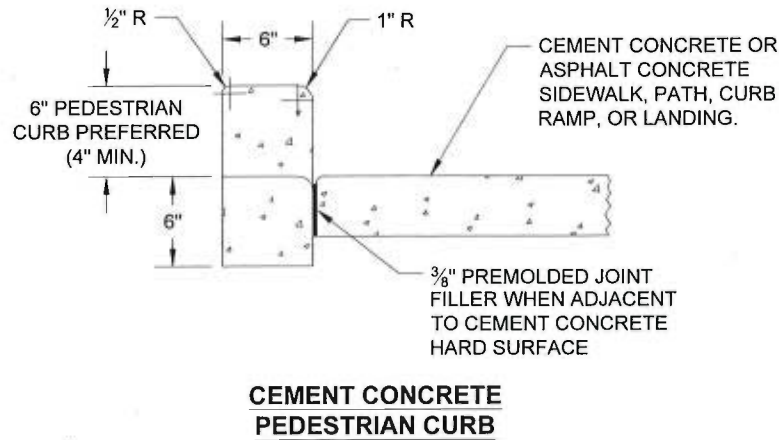
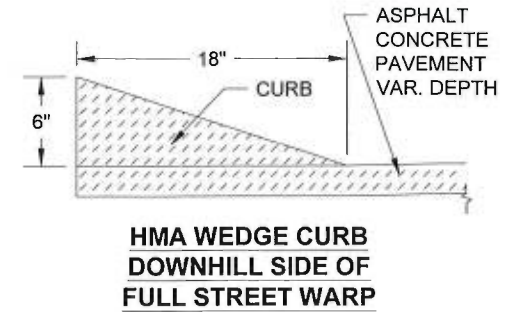
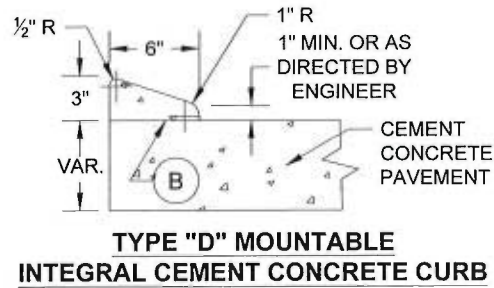
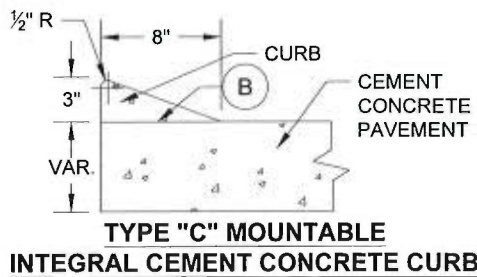
CITY OF TACOMA

### 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.

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NA

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SERVICES

NA

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*[Signature]* 8/16/16

CITY ENGINEER

DATE

CITY OF TACOMA  
CEMENT CONCRETE  
CURB AND GUTTER AND  
ASPHALT WEDGE CURB

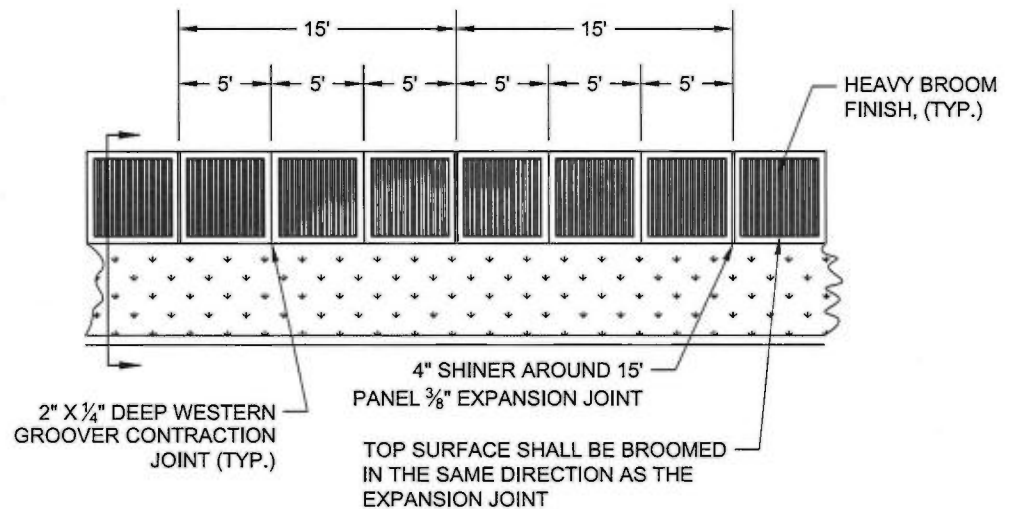
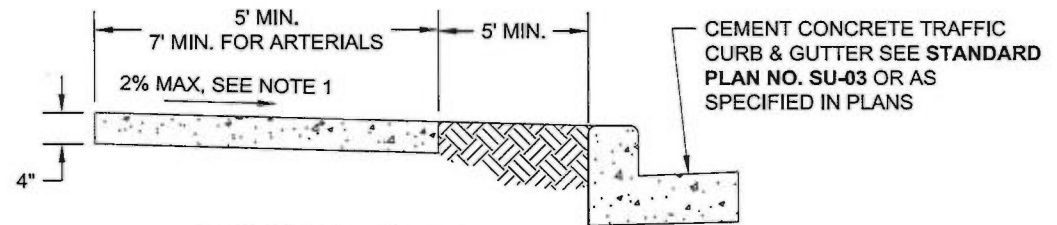
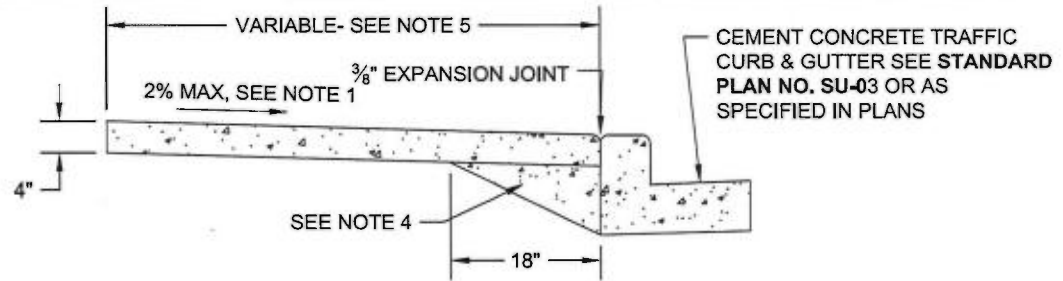
STANDARD PLAN NO.

SU-03A



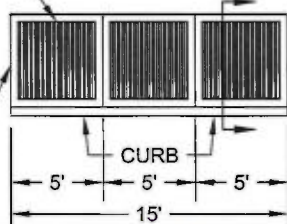
# NOTES:

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.



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'

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N/A

TACOMA POWER

ENVIRONMENTAL SERVICES

N/A

TACOMA WATER



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CITY ENGINEER

4/25/19  
DATE


CITY OF TACOMA

CEMENT CONCRETE  
SIDEWALK

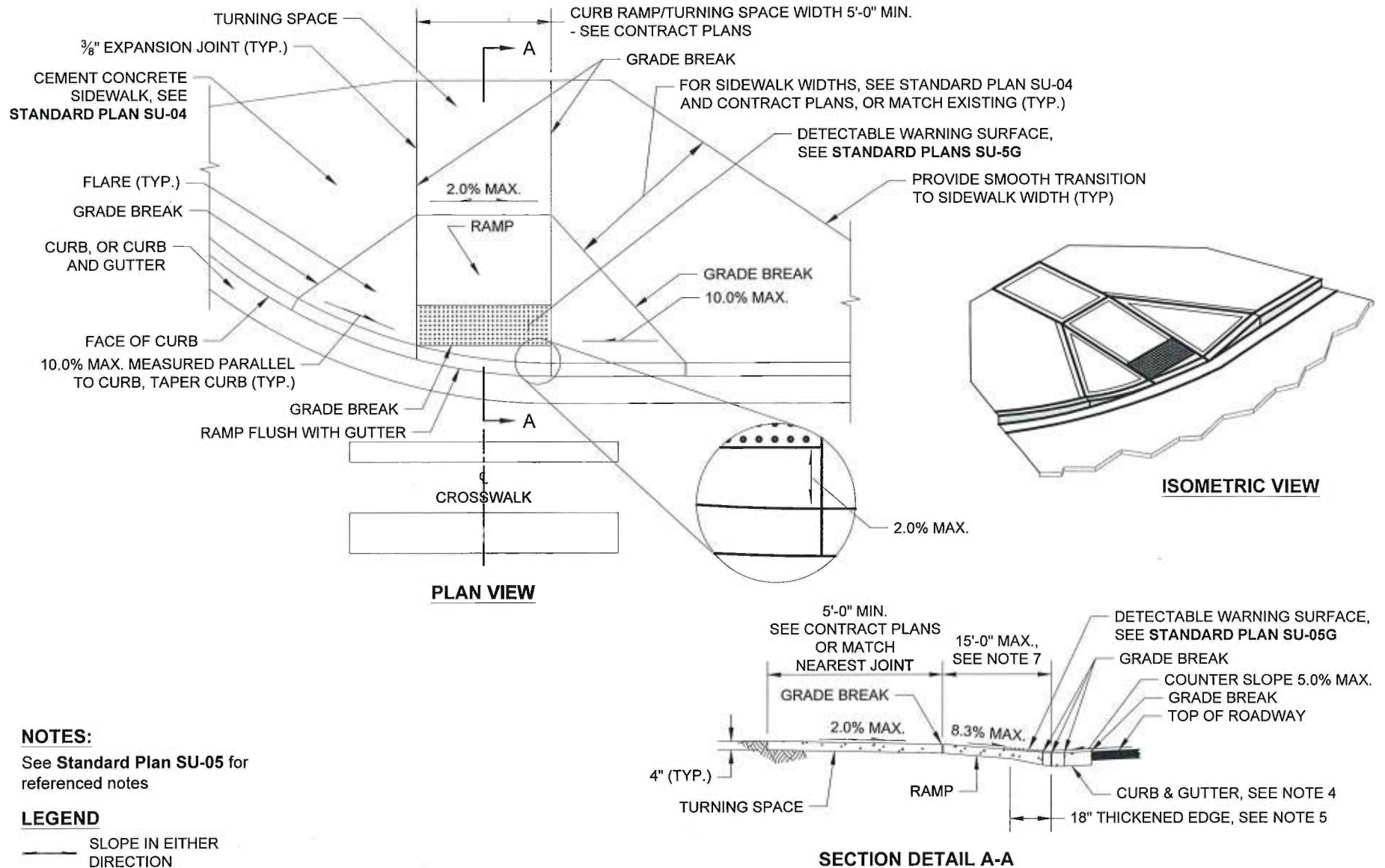
STANDARD PLAN NO. SU-04

**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.

 PUBLIC WORKS		REVIEWED BY  ENVIRONMENTAL SERVICES			APPROVED FOR PUBLICATION  CITY ENGINEER		8/16/16 DATE	CITY OF TACOMA  CURB RAMP DETAILS GENERAL INFORMATION	
 TACOMA POWER		NA TACOMA WATER			STANDARD PLAN NO. SU-05				





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SERVICES

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CITY ENGINEER

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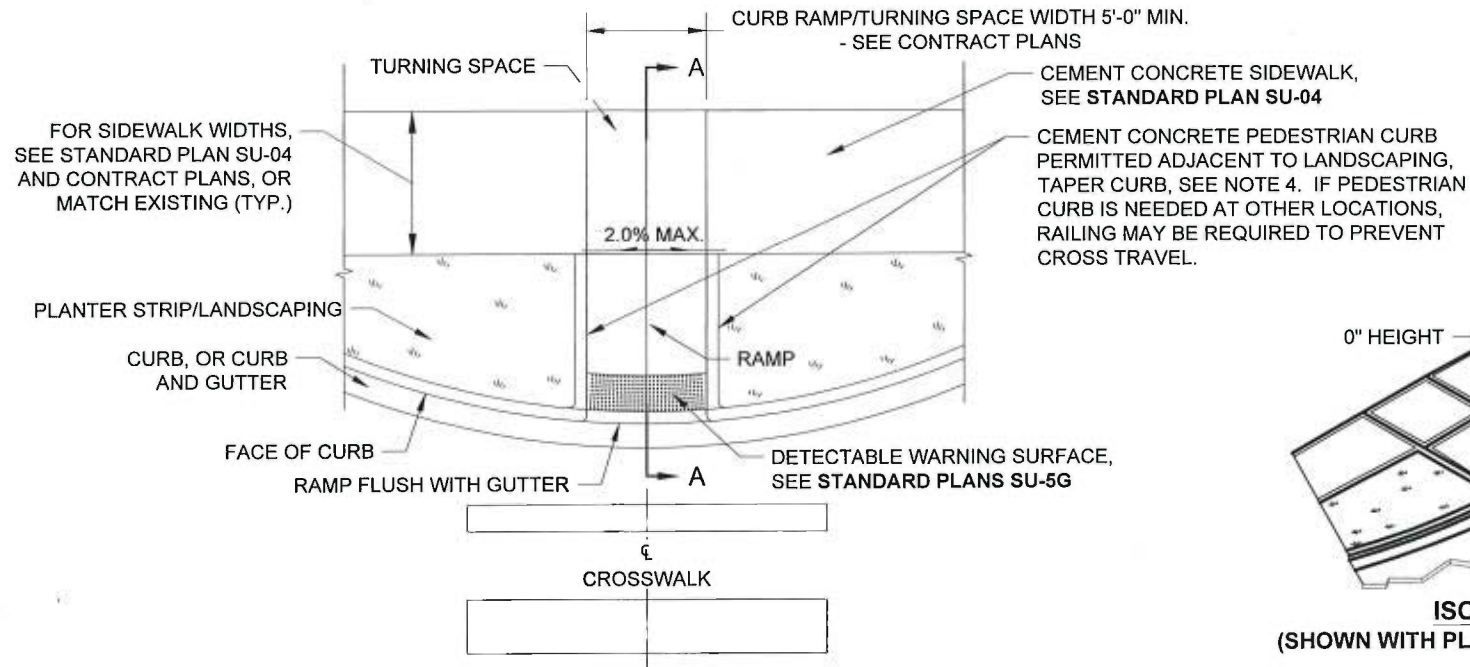
CITY OF TACOMA

PERPENDICULAR CURB RAMP  
TYPE 'A'

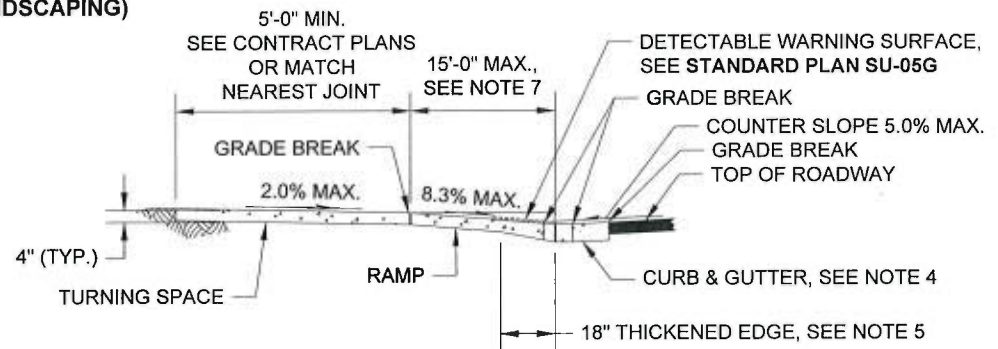
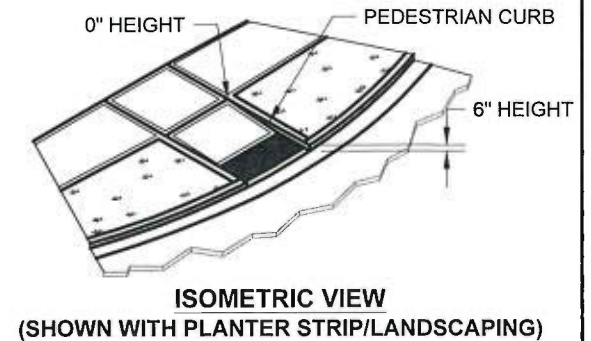
STANDARD PLAN NO.

SU-05A





**PLAN VIEW**  
(SHOWN WITH PLANTER STRIP/LANDSCAPING)



**SECTION DETAIL A-A**

**NOTES:**

See **Standard Plan SU-05** for referenced notes

**LEGEND**

— SLOPE IN EITHER DIRECTION

**DCS**

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**GMS**

PUBLIC WORKS

ENVIRONMENTAL SERVICES

**NA**

**NA**

TACOMA POWER

TACOMA WATER



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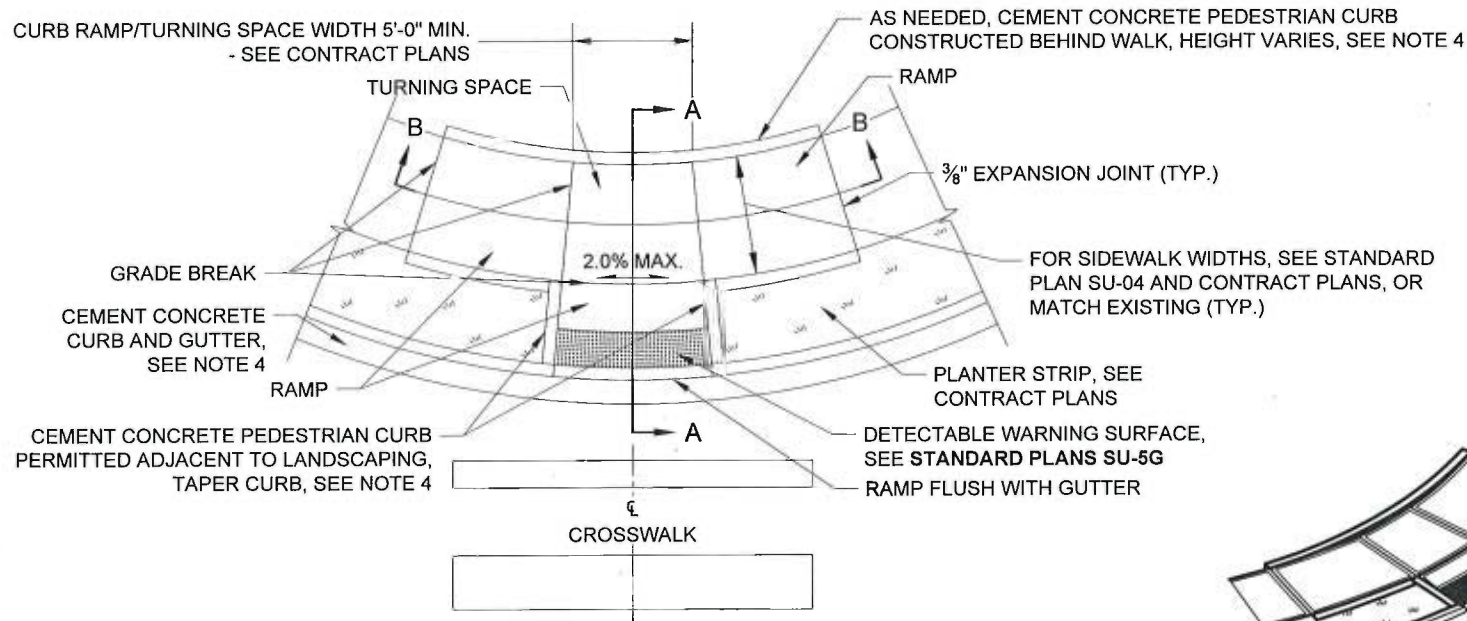
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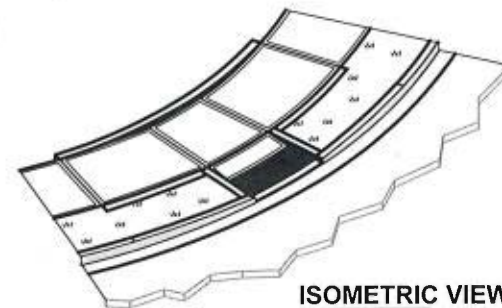
CITY OF TACOMA

PERPENDICULAR CURB RAMP  
TYPE 'B'

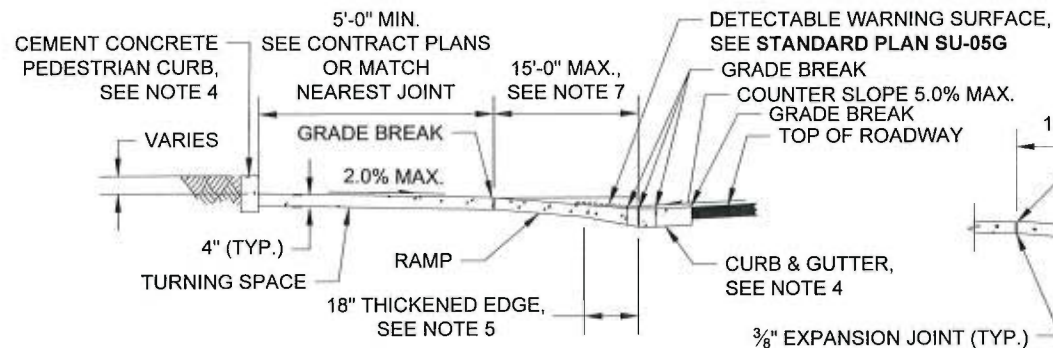
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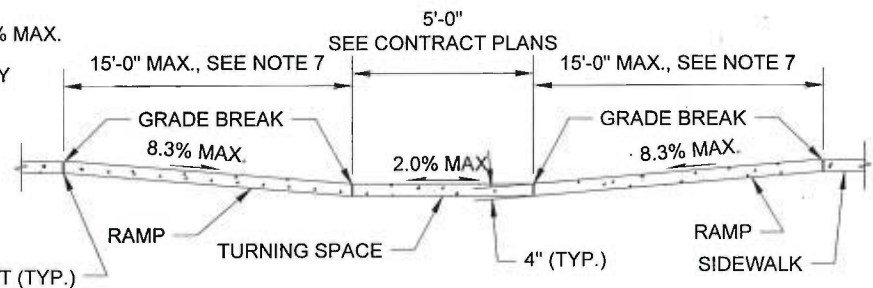
**PLAN VIEW**  
(WITH PLANTER STRIP/LANDSCAPING)



**ISOMETRIC VIEW**



**SECTION DETAIL A-A**



**SECTION DETAIL B-B**

**NOTES:**

See **Standard Plan SU-05** for referenced notes

**LEGEND**

— SLOPE IN EITHER DIRECTION

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ENVIRONMENTAL SERVICES

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TACOMA POWER

TACOMA WATER



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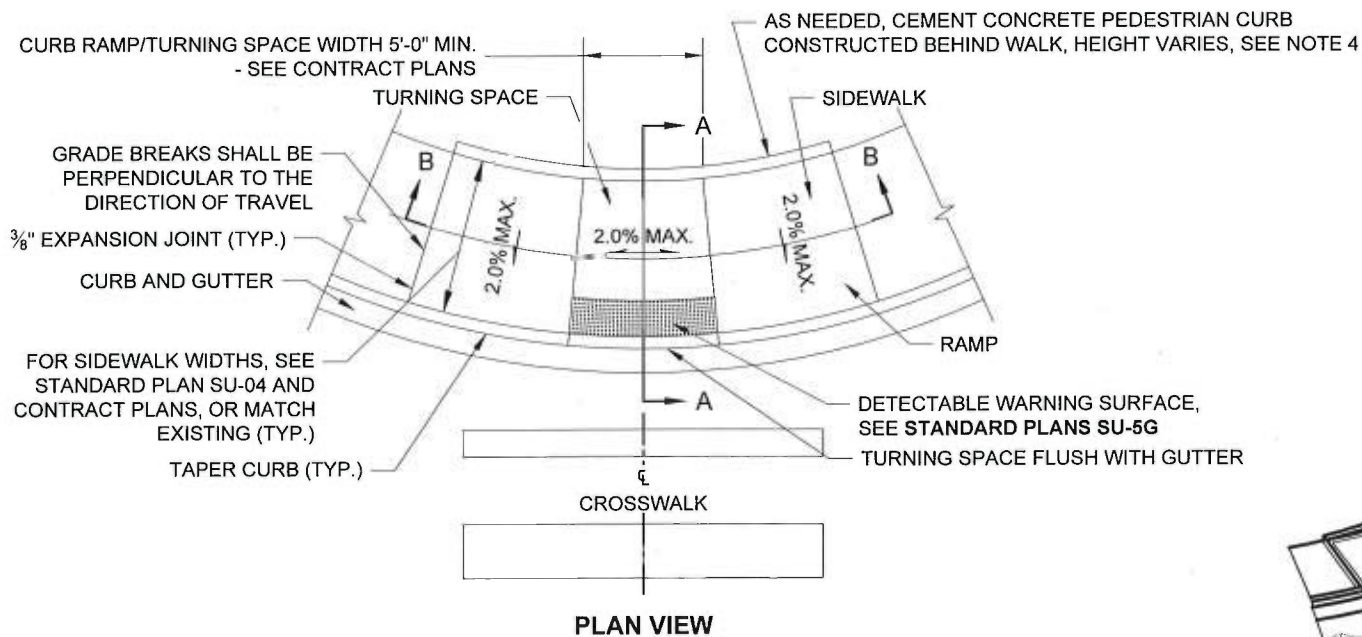
CITY ENGINEER

DATE

CITY OF TACOMA

COMBINATION CURB RAMP

STANDARD PLAN NO. SU-05C

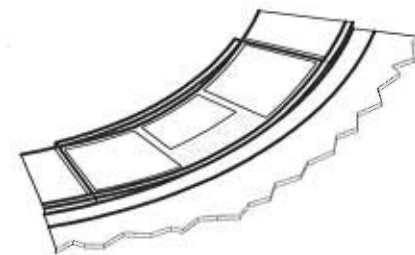


**NOTES:**

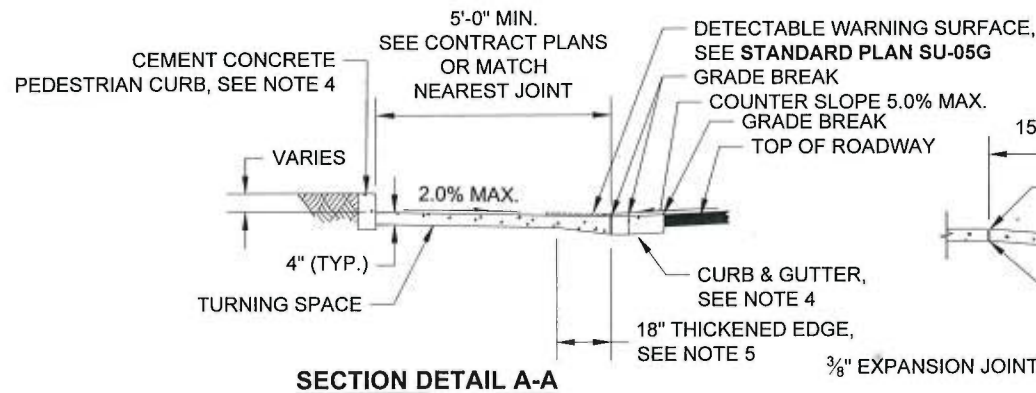
See **Standard Plan SU-05** for referenced notes

**LEGEND**

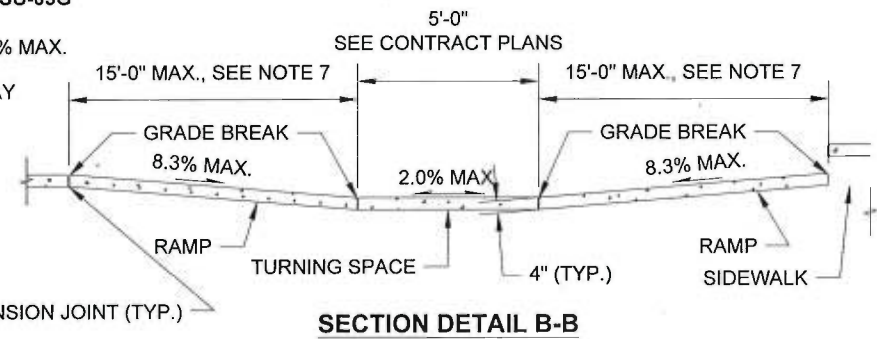
— SLOPE IN EITHER DIRECTION



**ISOMETRIC VIEW**



**SECTION DETAIL A-A**



**SECTION DETAIL B-B**

**DCS**  
PUBLIC WORKS  
**NA**  
TACOMA POWER

REVIEWED BY

**GMS**  
ENVIRONMENTAL SERVICES  
**NA**  
TACOMA WATER



APPROVED FOR PUBLICATION

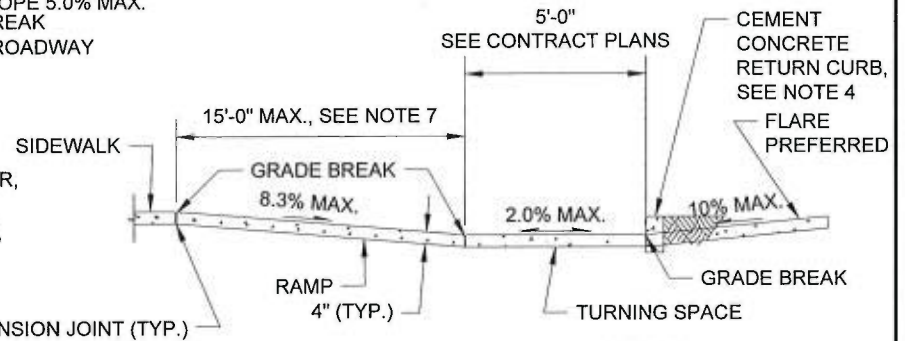
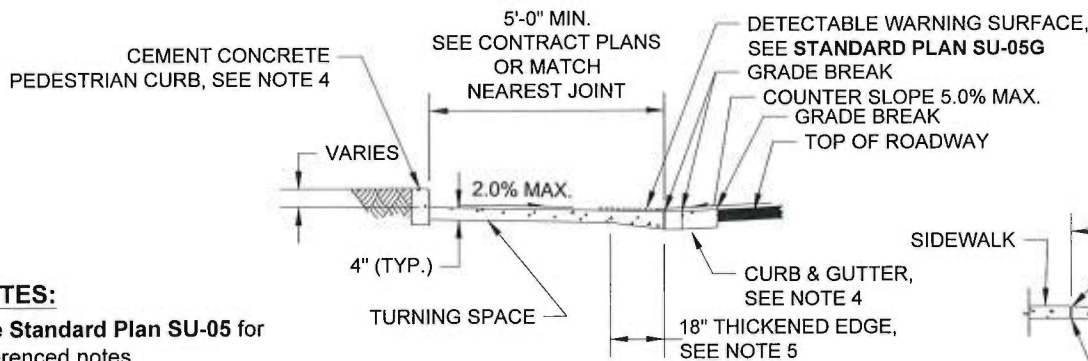
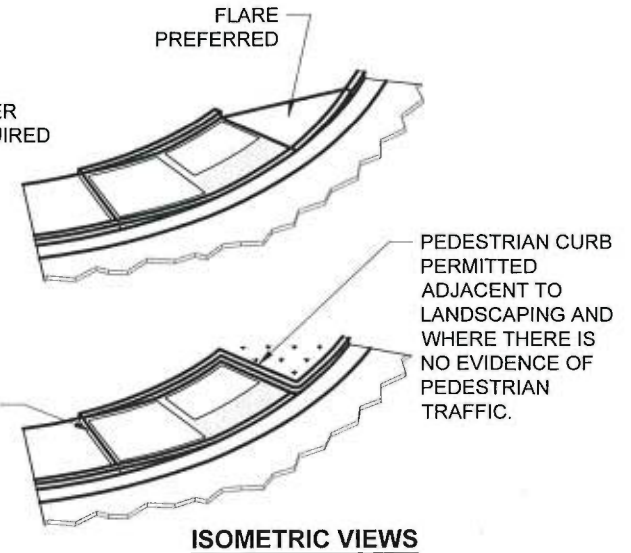
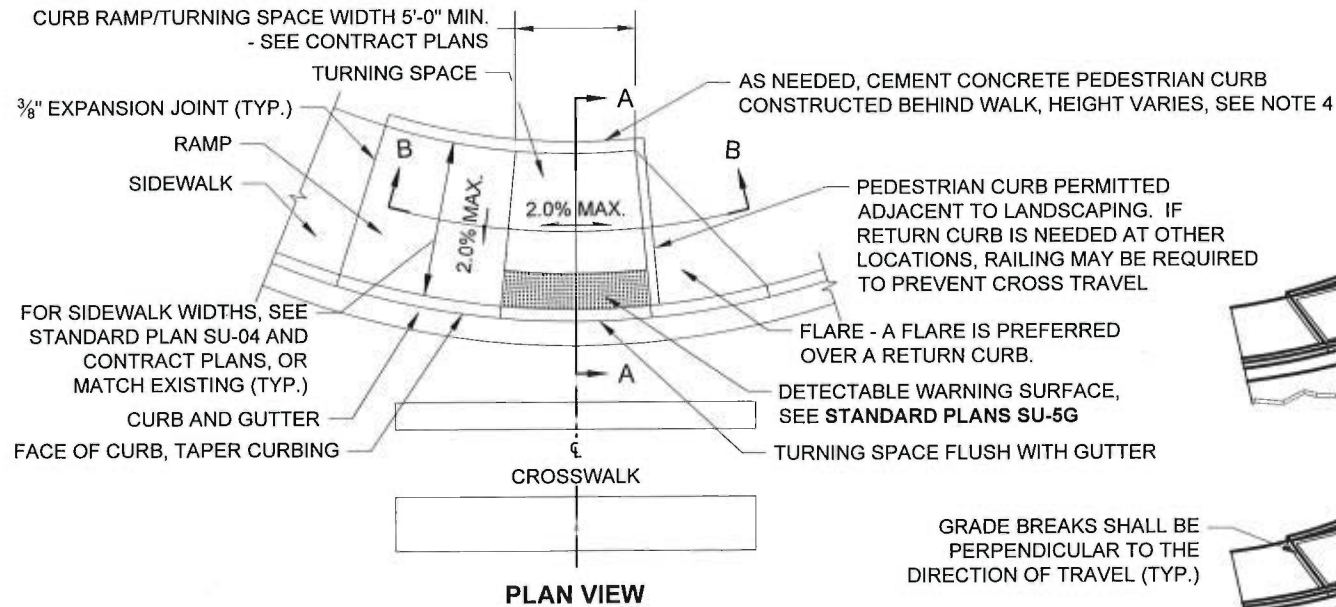
*[Signature]* 8/16/16  
CITY ENGINEER DATE

CITY OF TACOMA

PARALLEL CURB RAMP  
TYPE 'A'

STANDARD PLAN NO. SU-05D





**NOTES:**

See **Standard Plan SU-05** for referenced notes

**LEGEND**

— SLOPE IN EITHER DIRECTION

DCS

REVIEWED BY

GMS

PUBLIC WORKS

ENVIRONMENTAL SERVICES

NA

NA

TACOMA POWER

TACOMA WATER



APPROVED FOR PUBLICATION

*[Signature]* 8/16/16

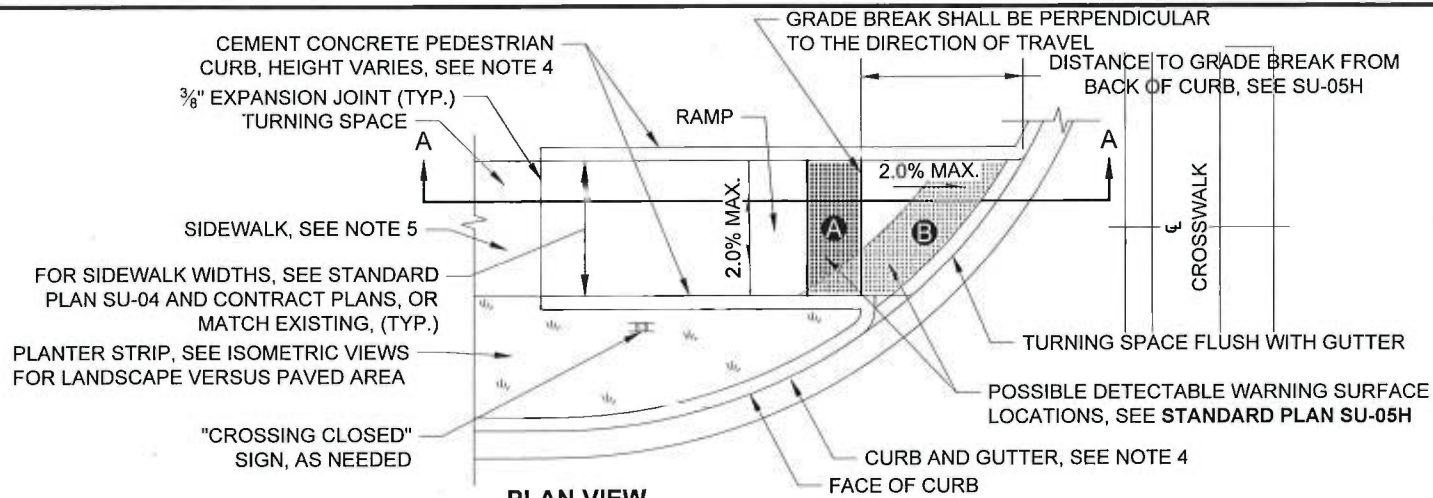
CITY ENGINEER

DATE

CITY OF TACOMA

PARALLEL CURB RAMP  
TYPE 'B'

STANDARD PLAN NO. SU-05E



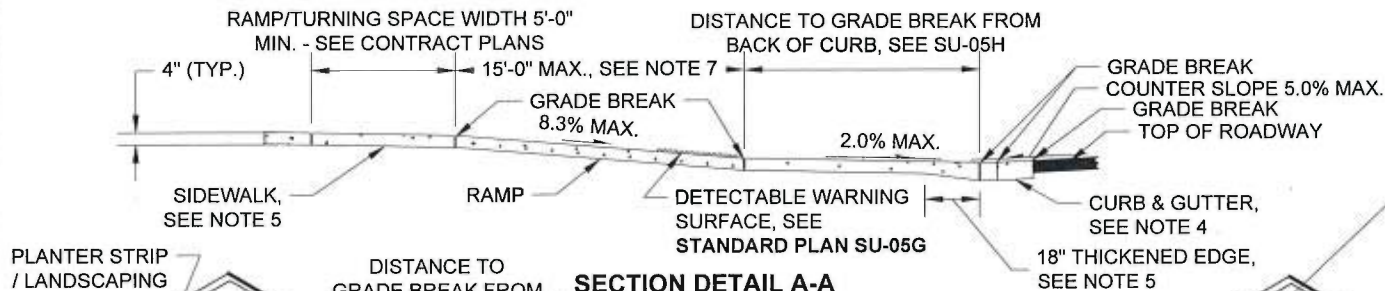
**NOTES:**

See Standard Plan SU-05 for referenced notes

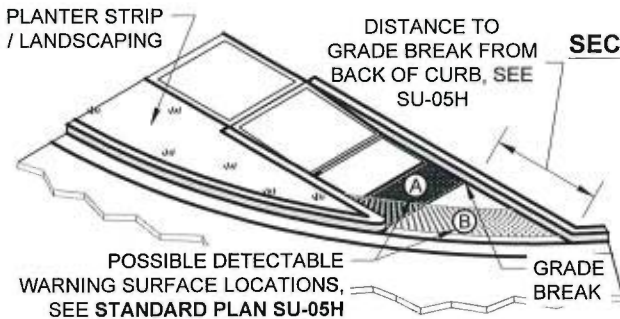
**LEGEND**

— SLOPE IN EITHER DIRECTION

**PLAN VIEW**



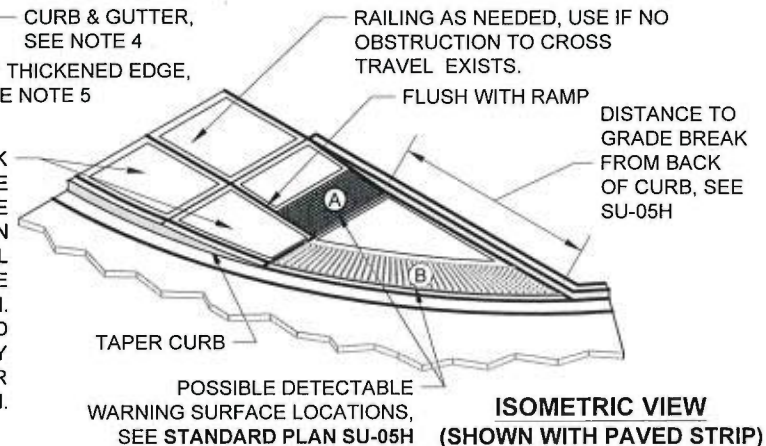
**SECTION DETAIL A-A**



**ISOMETRIC VIEW**

(SHOWN WITH PLANTER STRIP/LANDSCAPING)

HARDESCAPED 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

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

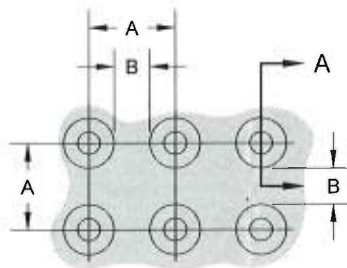
SINGLE DIRECTION CURB RAMP

STANDARD PLAN NO.

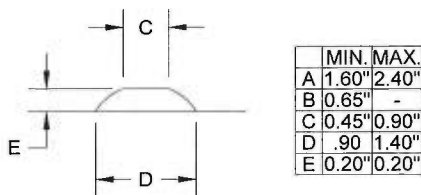
SU-05F

**NOTES:**

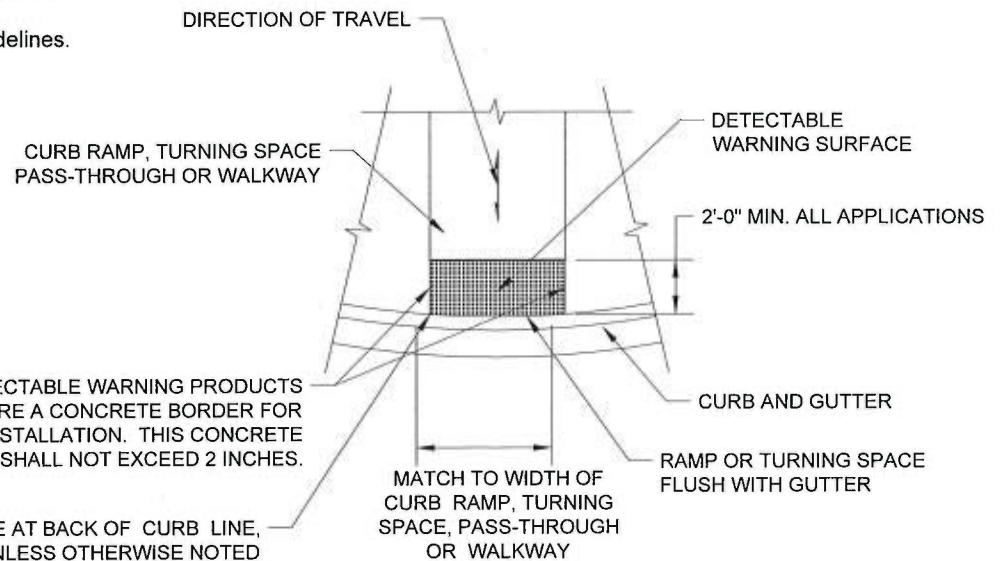
1. The Detectable Warning Surface shall extend the full width of the curb ramp (exclusive of flares) or the turning area.
2. The rows of truncated domes in a Detectable Warning Surface shall be parallel with the direction of wheelchair travel.
3. See **Standard Plans SU-04** through **SU-05F** for sidewalk and curb ramp details.
4. If a curb is not present, place the Detectable Warning Surface at the edge of the pavement.
5. The Detectable Warning Pattern shall be installed using Vanguard ADA Systems, ADA Solutions, or Armor-Tile "Cast in Place Systems," manufactured by Engineering Plastics Inc., or approved equal. Concrete shall be blocked out as required for the installation of the Detectable Warning Pattern material.
6. The Detectable Warning Pattern area shall be yellow and shall match the color of Federal Standard 595a, color number 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



**DETECTABLE WARNING SURFACE DETAIL**

**DCS**  
PUBLIC WORKS  
**NA**  
TACOMA POWER

REVIEWED BY

**GMS**  
ENVIRONMENTAL  
SERVICES  
**NA**  
TACOMA WATER



APPROVED FOR PUBLICATION

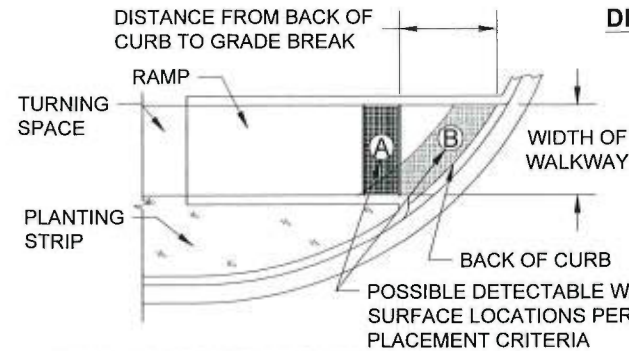
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CITY ENGINEER DATE

CITY OF TACOMA

DETECTABLE WARNING SURFACE  
DETAILS

STANDARD PLAN NO. SU-05G



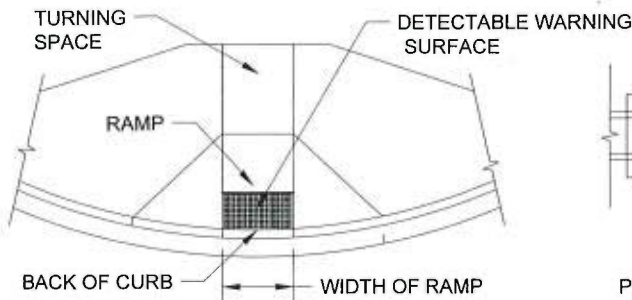


### DETECTABLE WARNING PLACEMENT CRITERIA FOR SINGLE DIRECTION CURB RAMP

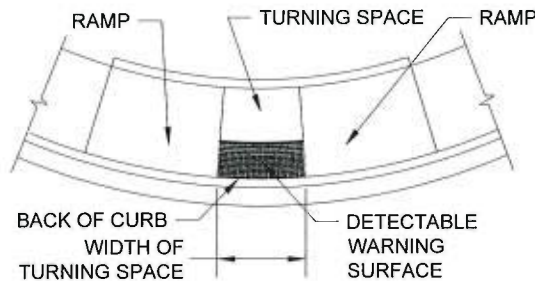
USE LOCATION (A) IF DISTANCE FROM BACK OF CURB TO GRADE BREAK IS LESS THAN OR EQUAL TO 5 FT.

USE LOCATION (B) IF DISTANCE FROM BACK OF CURB TO GRADE BREAK IS GREATER THAN 5 FT.

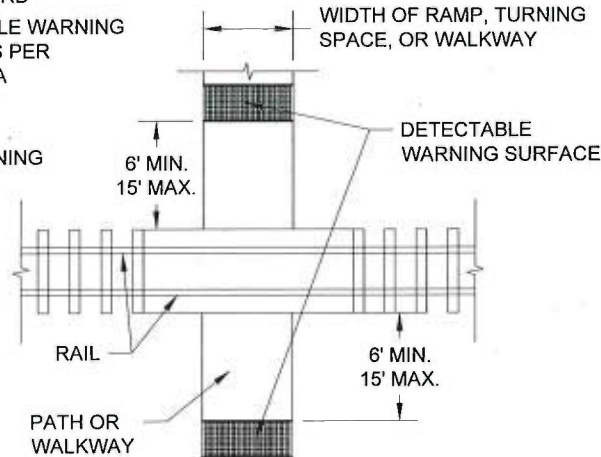
### SINGLE DIRECTION CURB RAMP



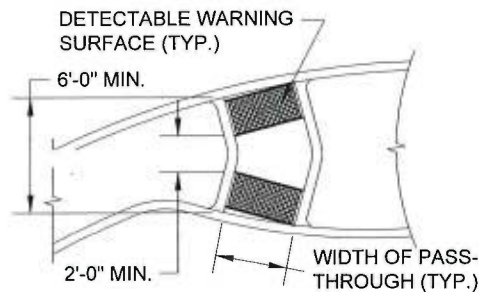
### PERPENDICULAR CURB RAMP (SEE SU-05A AND SU-05B)



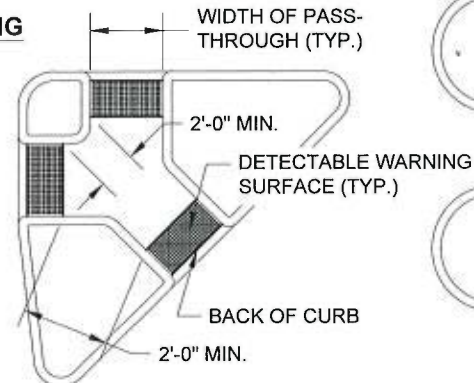
### PARALLEL CURB RAMP (SEE SU-05C, SU-05D, AND SU-05E)



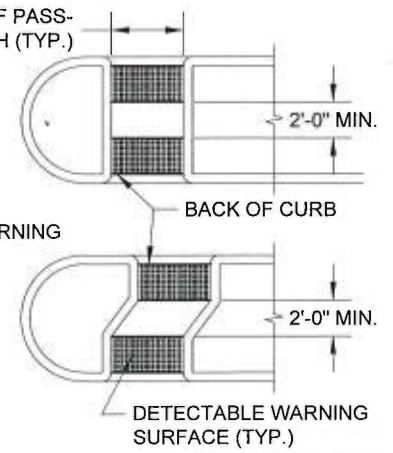
### PEDESTRIAN RAILROAD CROSSING



### 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) or the turning space.
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. The Detectable Warning Pattern shall be installed using Vanguard ADA Systems, or Armor-Tile "Cast in Place Systems" as manufactured by Engineering Plastics Inc., or approved equal. Concrete shall be blocked out as required for the installation of the Detectable Warning Pattern material. See **Standard Plan SU-05G** for additional information.
8. The Detectable Warning Pattern area shall be yellow and shall match the color of Federal Standard 595a, Color Number 33538 unless otherwise noted.

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

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.

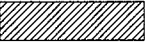
**R303.2.1.3 LANDING.**  
A LANDING (4.0 FEET MINIMUM BY 4.0 FEET MINIMUM, 5.0 FEET BY 5.0 FEET PREFERRED) SHALL BE PROVIDED AT THE TOP OF THE CURB RAMP AND SHALL BE PERMITTED TO OVERLAP OTHER LANDINGS AND CLEAR SPACE. RUNNING AND CROSS SLOPES AT INTERSECTIONS SHALL BE 2% MAXIMUM.

**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.

**R303.2.2** 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).

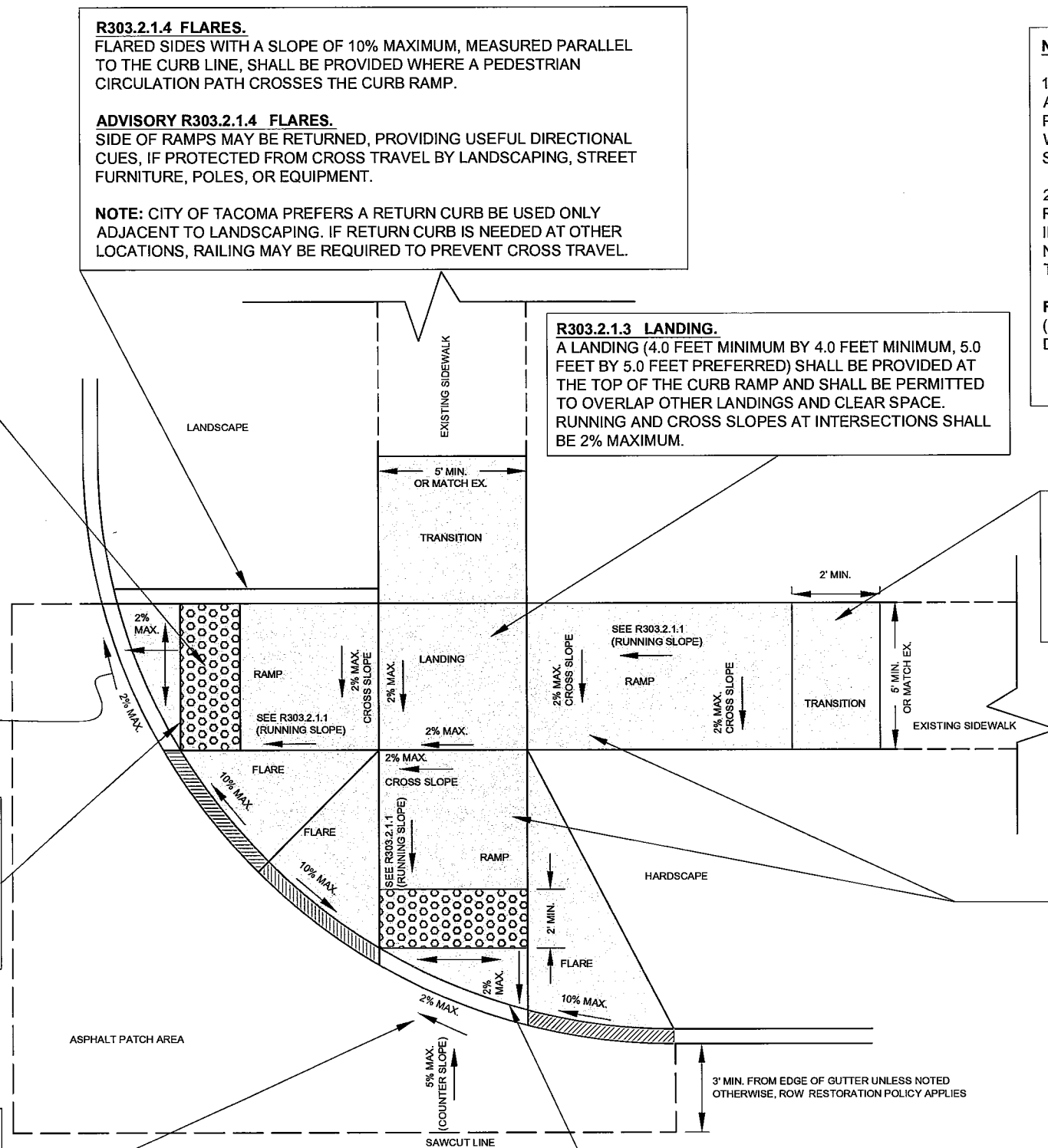
**R303.2.1 PERPENDICULAR CURB RAMPS.**

**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.



**FOR INFORMATIONAL PURPOSES ONLY  
DO NOT INCLUDE IN CONTRACT SPECIFICATIONS**

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.

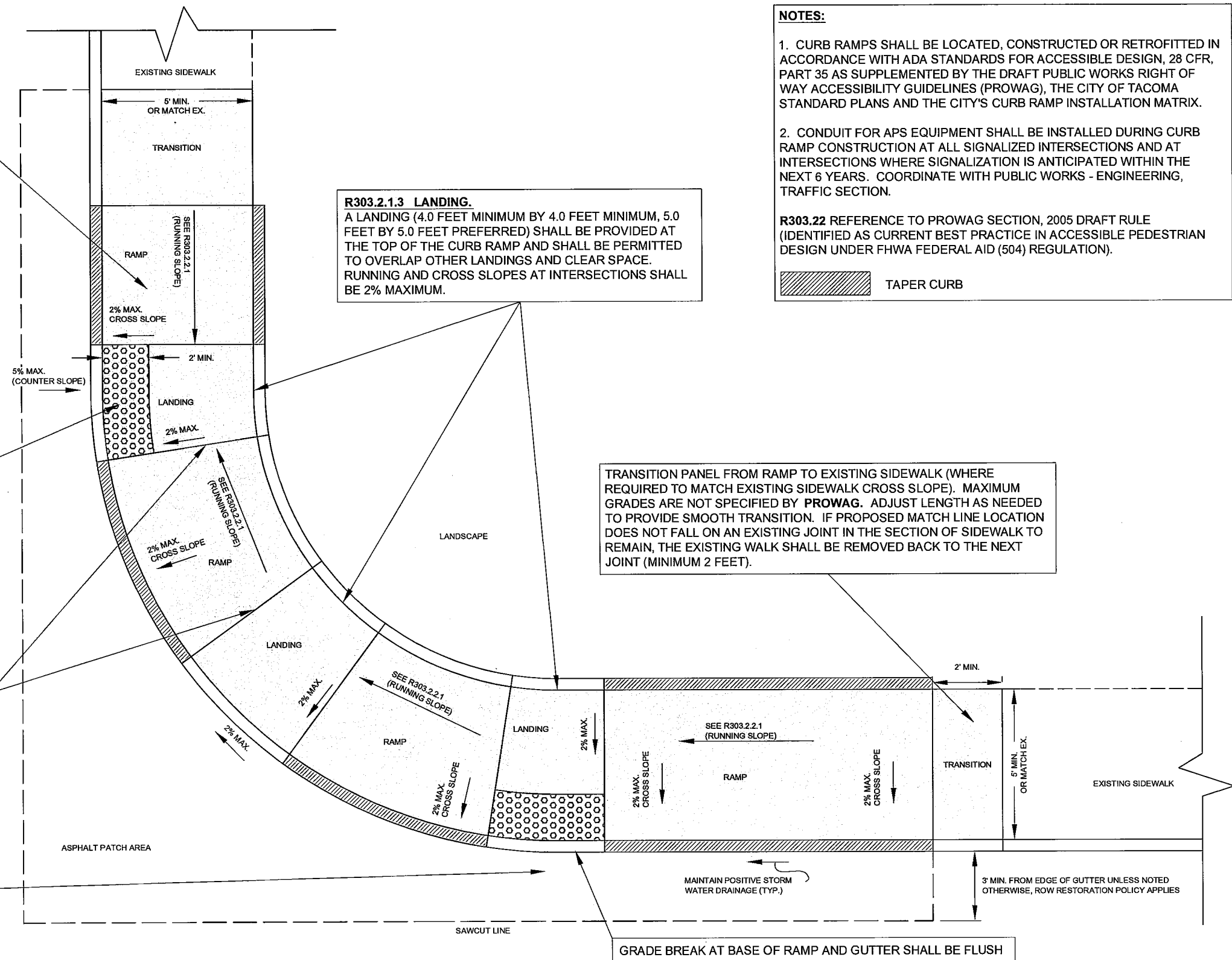
**CROSSWALK.**

**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.



**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

**FOR INFORMATIONAL PURPOSES ONLY  
DO NOT INCLUDE IN CONTRACT SPECIFICATIONS**

**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 5' or greater.
  - 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 5' wide.
  - 1.c. Cement Concrete Driveway Entrance Type 3 (Entrances) or Accesses Type 3 (Accesses) shall be used at alleys where the planting strip is 5' wide or greater.
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 5-05.3(8)B for cement concrete surfaces and 5-04.3(5)C for asphalt concrete surfaces.
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 panel from new Entrance or Access to sidewalk shall be a minimum of 5 feet.
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 9-29.3(2)A4.
14. Detectable Warning Surface shall be placed at alleys if the ADT is greater than 700, in the downtown area, located near a high pedestrian volume area, or where there are sight distance concerns. 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.
15. 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.

**REVIEWED BY**

DCS  
PUBLIC WORKS

N/A

TACOMA POWER

GMS  
ENVIRONMENTAL  
SERVICES

N/A

TACOMA WATER



**APPROVED FOR PUBLICATION**

[Signature]

CITY ENGINEER

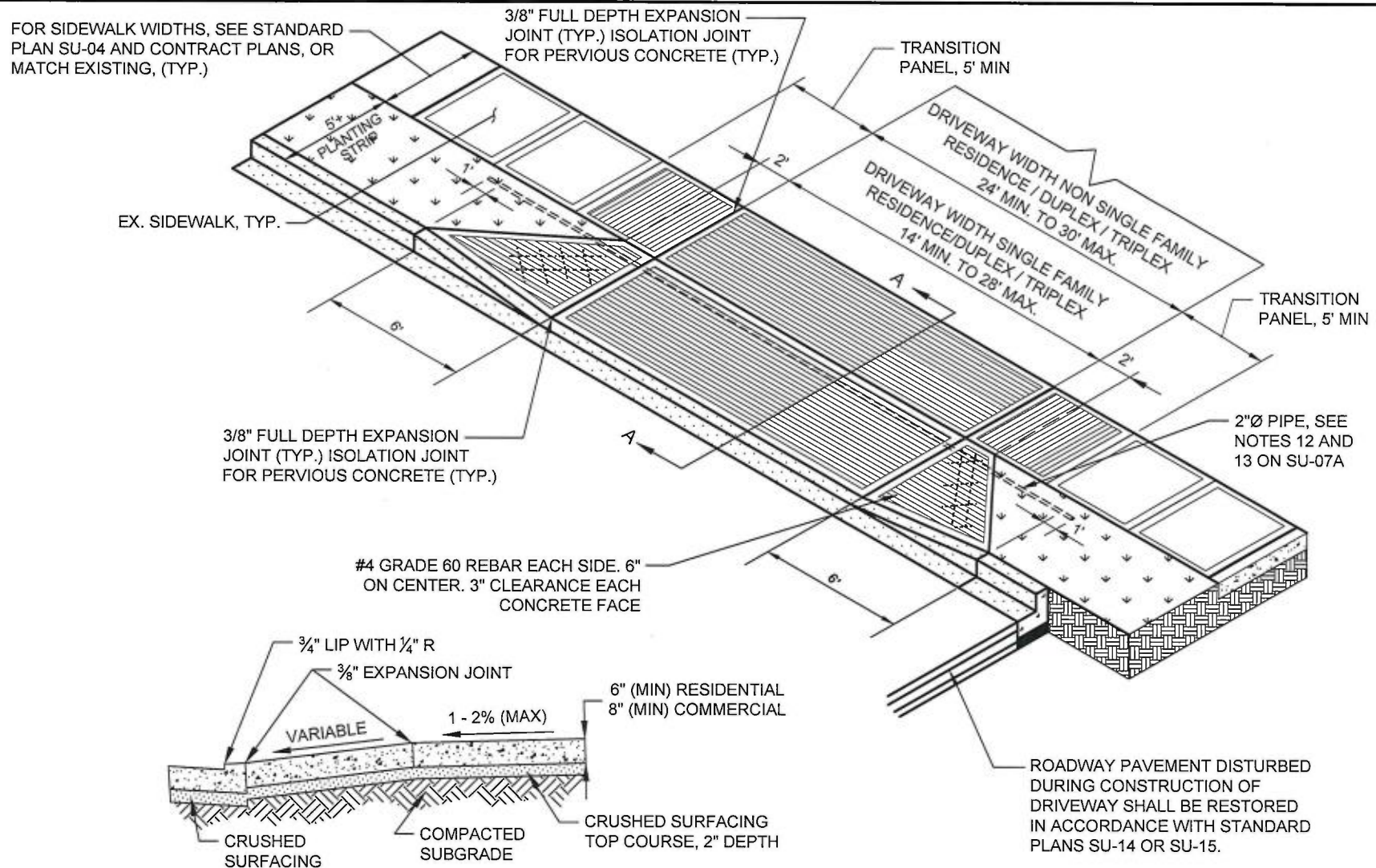
8/22/17

DATE

**CITY OF TACOMA  
CEMENT CONCRETE DRIVEWAY  
ENTRANCE AND ACCESS  
TYPE 1**

**STANDARD PLAN NO.**

**SU-07A**



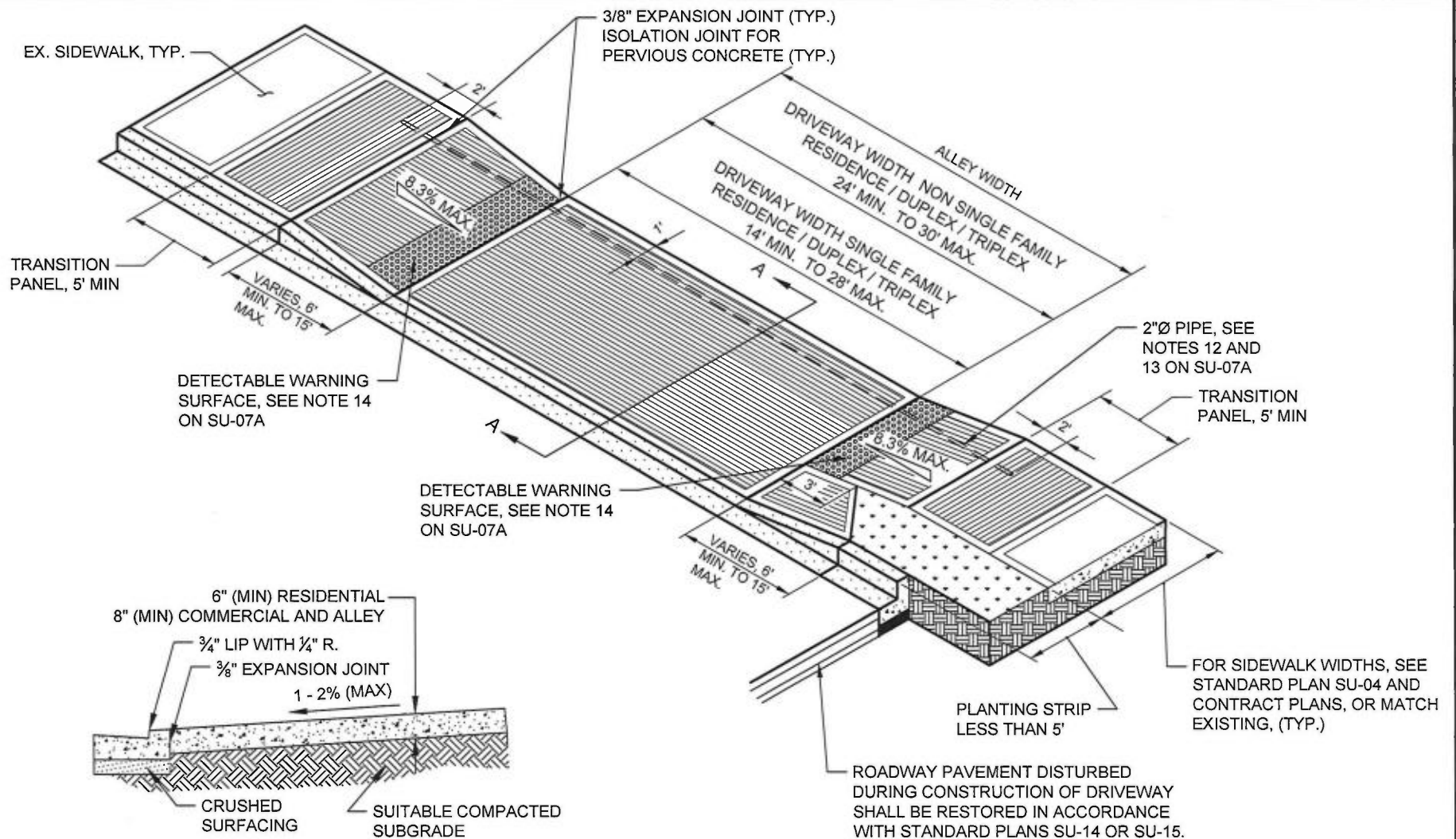
NOTE: DESIGNED SECTION REQUIRED FOR PERMEABLE SURFACING. SEE NOTES 10 AND 11 ON SU-07A.

**STANDARD CONCRETE SECTION DETAIL A-A**

NTS

<p>DCS PUBLIC WORKS</p> <p>N/A TACOMA POWER</p>	<p>REVIEWED BY <i>Gmy</i></p> <p>ENVIRONMENTAL SERVICES</p> <p>N/A TACOMA WATER</p>		<p>APPROVED FOR PUBLICATION</p> <p><i>[Signature]</i> 8/22/17</p> <p>CITY ENGINEER DATE</p>	<p>CITY OF TACOMA CEMENT CONCRETE DRIVEWAY ENTRANCE AND ACCESS TYPE 1</p> <p>STANDARD PLAN NO. SU-07B</p>
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NOTE: DESIGNED SECTION REQUIRED FOR PERMEABLE SURFACING. SEE NOTES 10 AND 11 ON SU-07A.

**STANDARD CONCRETE SECTION DETAIL A-A**

NTS

REVIEWED BY

DCS

PUBLIC WORKS

GML

ENVIRONMENTAL  
SERVICES

N/A

TACOMA POWER

N/A

TACOMA WATER



APPROVED FOR PUBLICATION

[Signature]

CITY ENGINEER

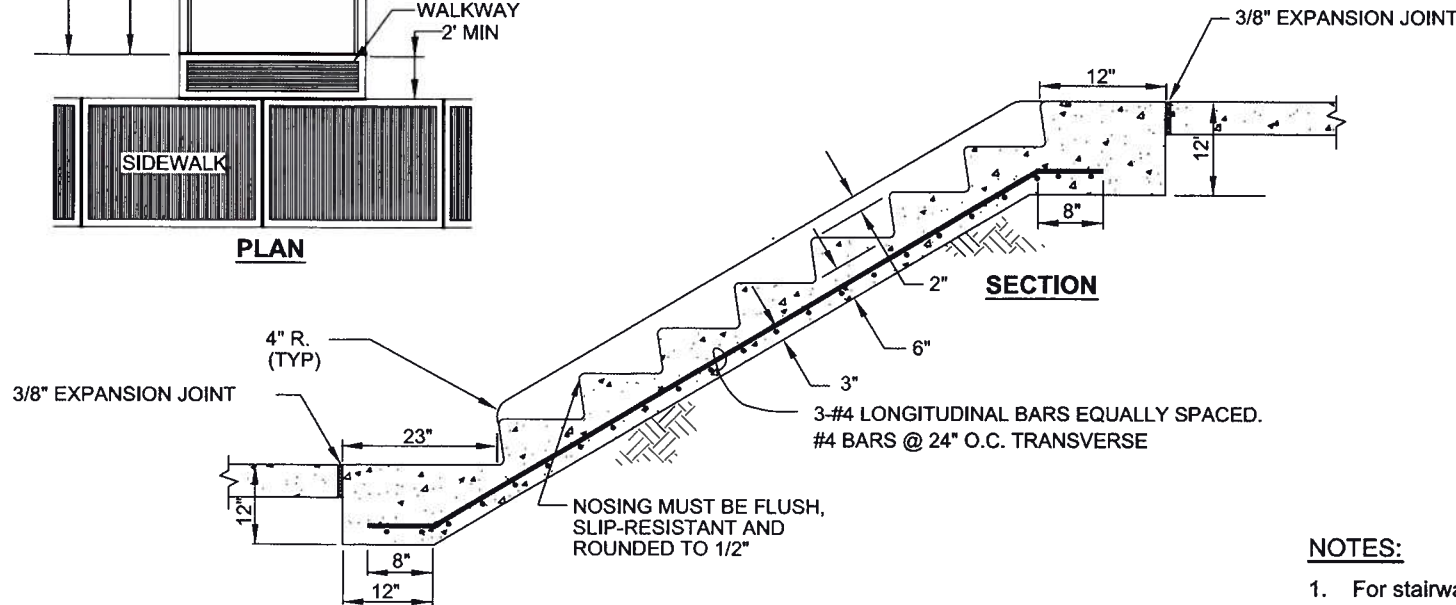
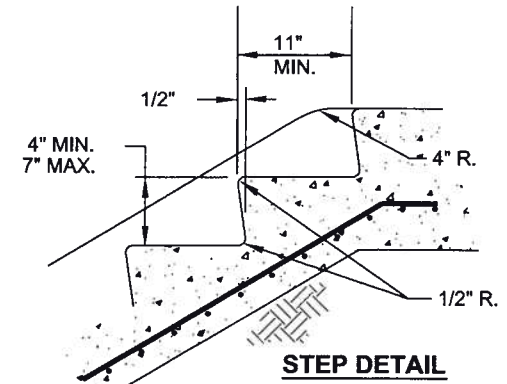
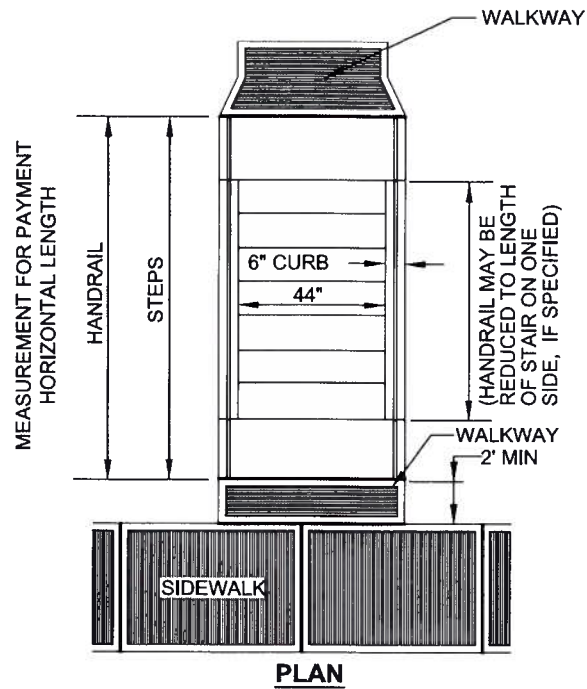
8/22/17

DATE

CITY OF TACOMA  
CEMENT CONCRETE DRIVEWAY  
ENTRANCE AND ACCESS  
TYPE 2

STANDARD PLAN NO.

SU-08



**NOTES:**

1. For stairway handrail details, refer to Standard Plan No. SU-11.
2. Concrete shall be a minimum compressive strength of 3,000 PSI.

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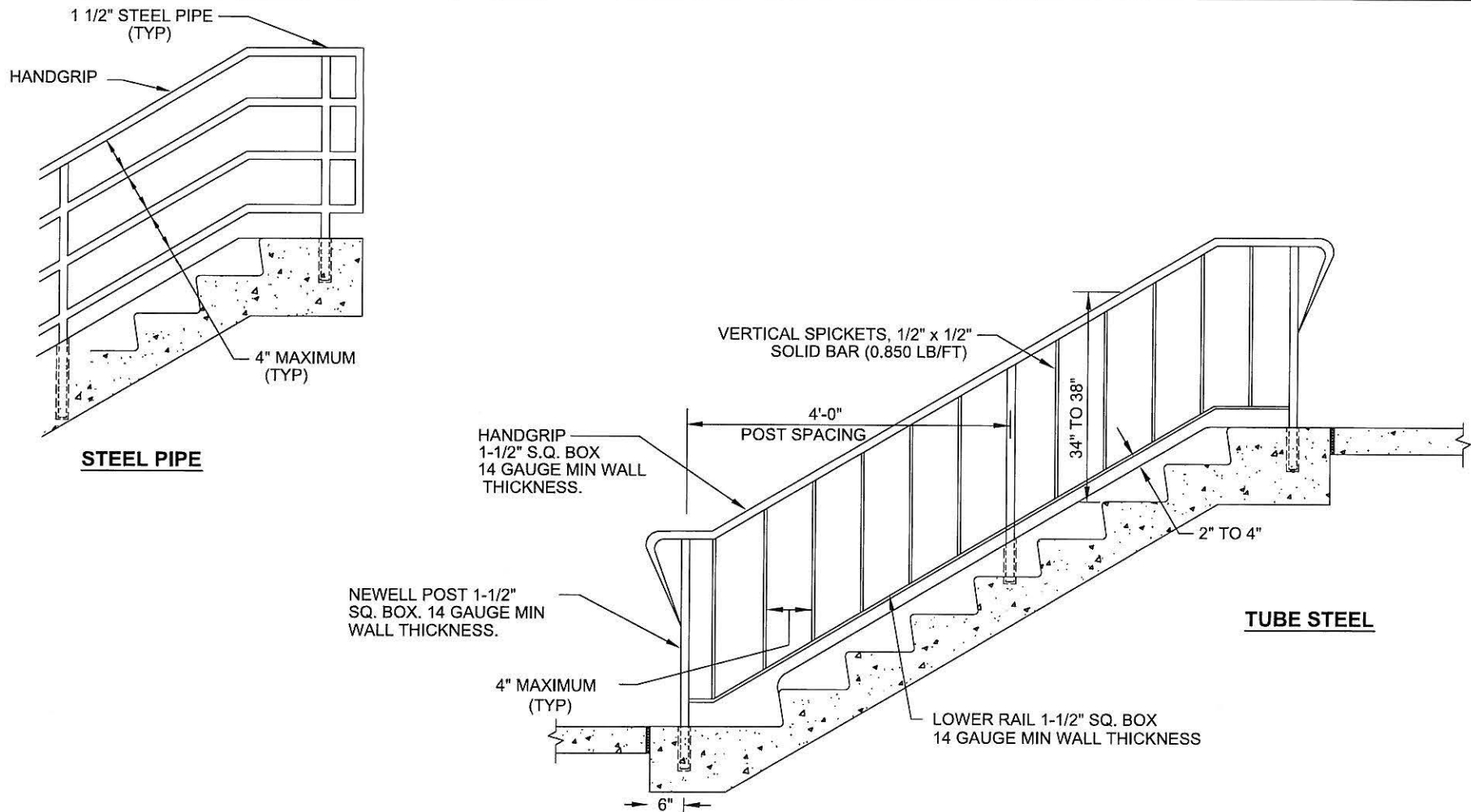
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*[Signature]*  
CITY ENGINEER

11/23/10  
DATE

CEMENT CONCRETE STAIRWAY

STANDARD PLAN NO. SU-10



NOTE:

For cement concrete stairway details, refer to Standard Plan No. SU-10

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DEPARTMENT OF PUBLIC WORKS

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*James P. Perry*  
CITY ENGINEER

12 JUN 2009  
DATE

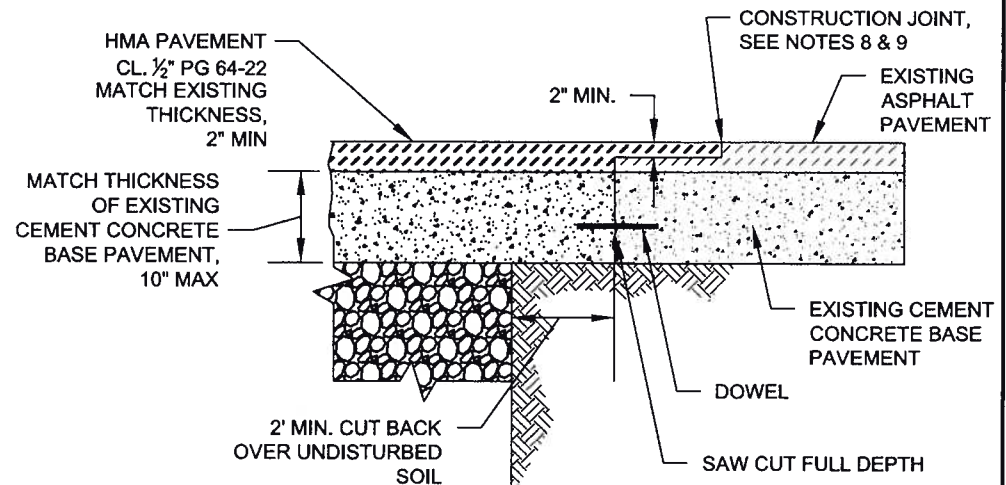
HANDRAILS

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-14D 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 areas 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 on a case by case basis.
9. Transverse construction joints terminate at the edge of the 2' cut back.
10. For municipal capital improvement projects, cement concrete base pavement shall be in accordance with WSDOT Standard Specification 5-05 for cement concrete pavement. For non-municipal capital improvement projects, concrete shall be a minimum compressive strength of 4,000 PSI.
11. Dowel in accordance with WSDOT Standard Plan A-60.10-00 for arterials, industrial areas, and/or roads with bus traffic. For residential streets the dowel bars may be reduced to 1-inch in diameter. In lieu of dowels, full panel replacement is acceptable.



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DEPARTMENT OF PUBLIC WORKS

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*[Signature]*  
CITY ENGINEER

11/30/10  
DATE

TYPICAL PAVEMENT RESTORATION  
FOR ASPHALT OVER  
CEMENT CONCRETE BASE PAVEMENT

STANDARD PLAN NO. SU-14A



**NOTES:**

1. **All pavement restoration work shall also meet the requirements of the City of Tacoma's Right of Way Restoration 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. Permanent Panel Replacement:

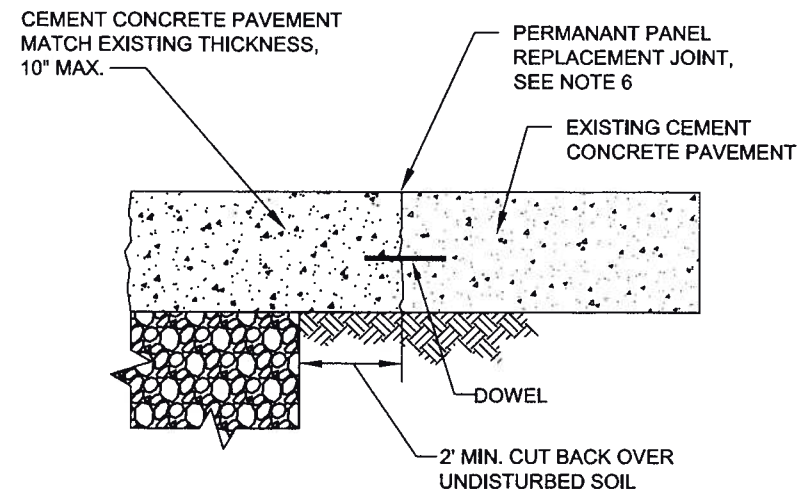
Arterials, industrial areas and/or roads with bus traffic:

100% panel replacement is required for all affected panels. Monolithic curbs will be poured at time of panel replacement.

Residential and Alleys: Panels cut greater than ½ the panel length, width, or total area, including the 2-foot cut back, will require 100% panel replacement. Panels cut less than ½ the panel length, width, or total area, including the 2-foot cut back will require 50% panel replacement. Three-piece panels are not acceptable and will require 100% panel replacement.

7. For municipal capital improvement projects, cement concrete base pavement shall be in accordance with WSDOT Standard Specification 5-05 for cement concrete pavement. For non-municipal capital improvement projects, concrete shall be a minimum compressive strength of 4,000 PSI.

8. Dowel in accordance with WSDOT Standard Plan A-60.10-00 for arterials, industrial areas, and/or roads with bus traffic. In residential streets the dowel bars may be reduced to 1-inch in diameter. In lieu of dowels, full panel replacement is acceptable.



**CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS**

**APPROVED FOR PUBLICATION**

  
CITY ENGINEER

11/20/10  
DATE

**TYPICAL PAVEMENT RESTORATION FOR  
CEMENT CONCRETE PAVEMENT**

**STANDARD PLAN NO. SU-14C**

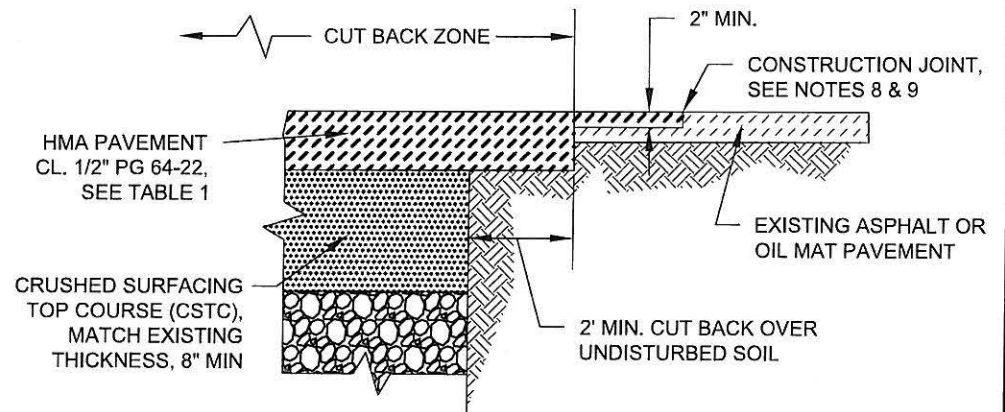


# NOTES

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"



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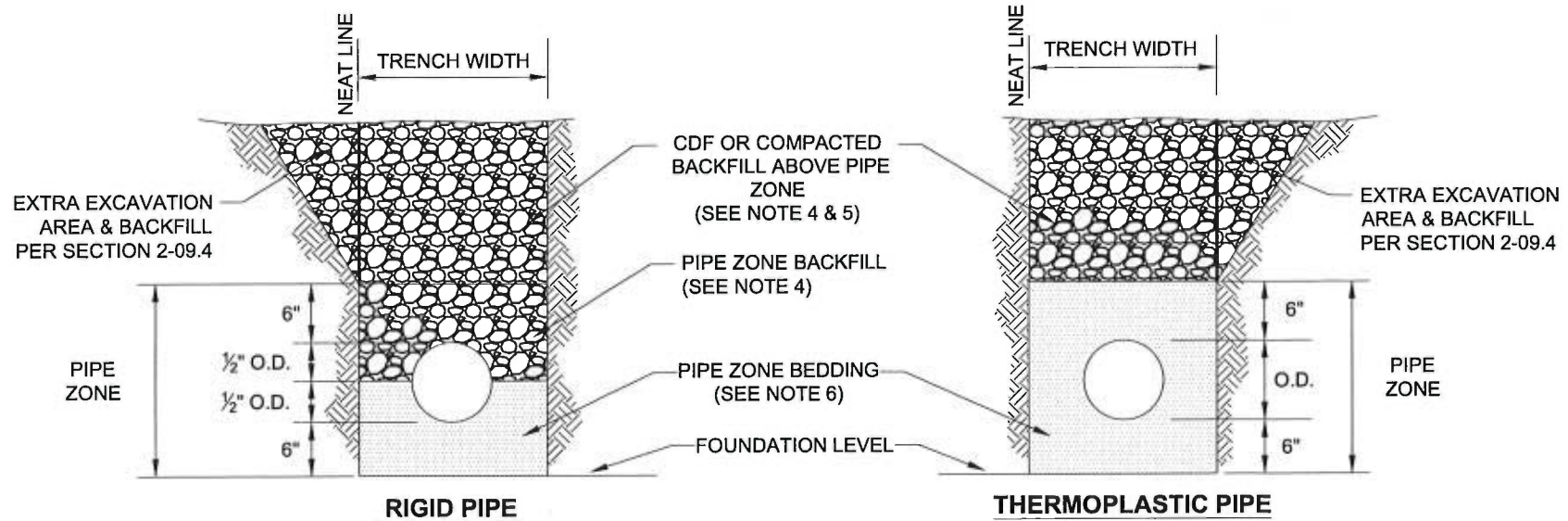
CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

*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

PUBLIC WORKS

NA

TACOMA POWER

REVIEWED BY

GMS

ENVIRONMENTAL  
SERVICES

NA

TACOMA WATER



APPROVED FOR PUBLICATION

*[Signature]*

CITY ENGINEER

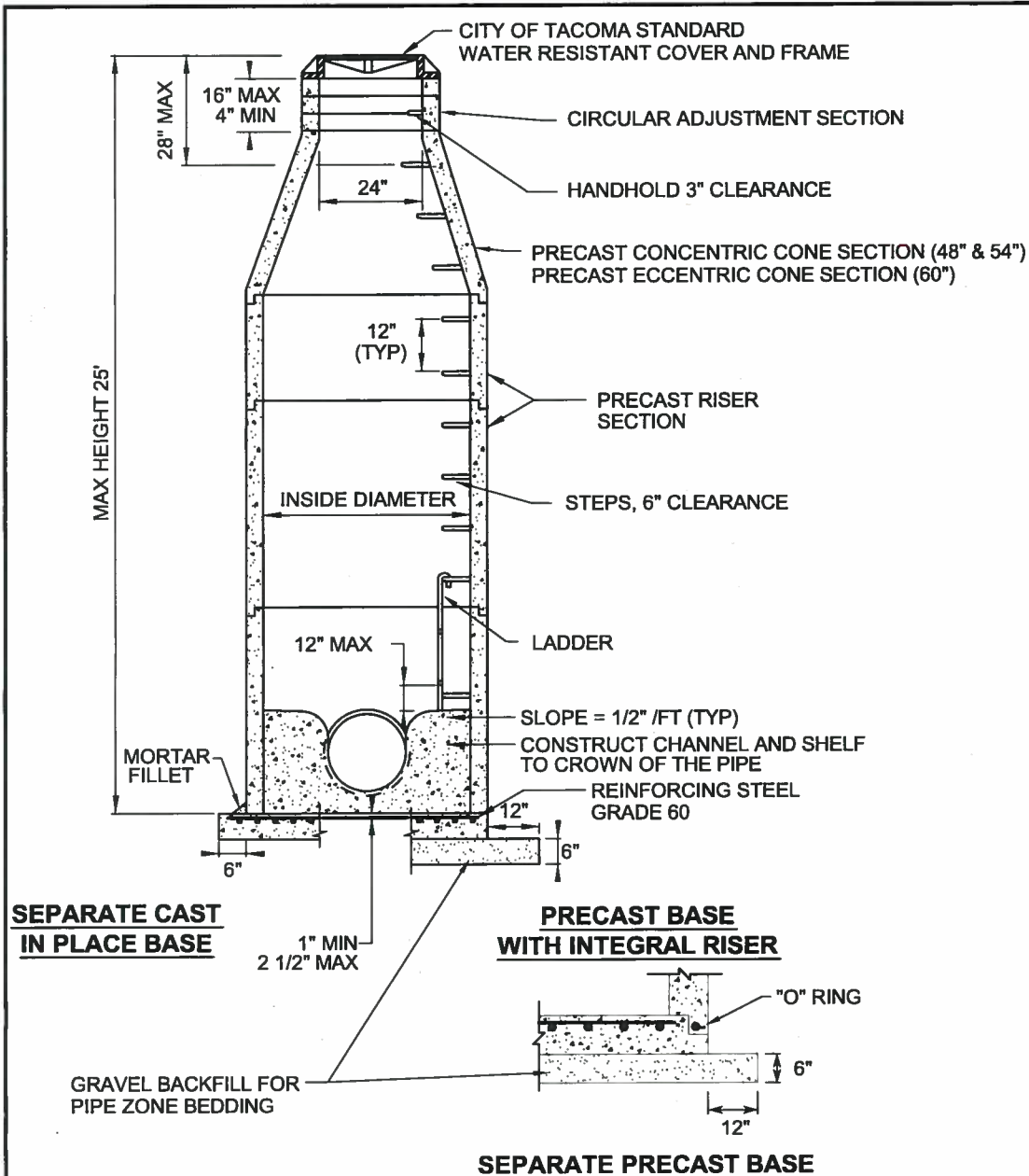
8/16/16

DATE

CITY OF TACOMA  
PIPE ZONE BEDDING AND BACKFILL  
FOR SANITARY AND STORM  
SEWERS

STANDARD PLAN NO.

SU-16



**NOTES:**

1. For details showing grade ring, ladder, steps, handholds and top slabs, see Standard Plan No. SU-21.
2. Non-reinforced concrete in channel and shelf shall be Class 3000. All precast concrete shall be Class 4000.
3. Rubber gaskets shall be used in tongue and groove joints of pre-cast sections.
4. A flexible pipe-to-manhole connector shall be employed in all connections of rigid and flexible pipes to new precast concrete manholes. The connector shall be "Kor-N-Seal" with "Wedge Korband" manufactured by NPC, Inc., or approved equal.
5. Base reinforcing steel shall be per manufacturer's recommendation.

**MANHOLE DIMENSION TABLE**

INSIDE DIAMETER	MINIMUM WALL THICKNESS	MINIMUM BASE THICKNESS	MAXIMUM HOLE SIZE	MINIMUM DISTANCE BETWEEN HOLES
48"	4"	6"	36"	8"
54"	4 1/2"	8"	42"	8"
60"	5"	8"	48"	8"

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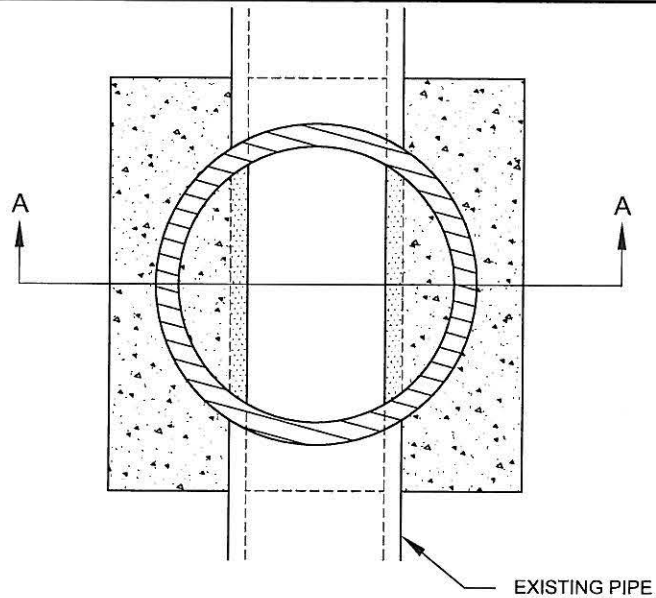
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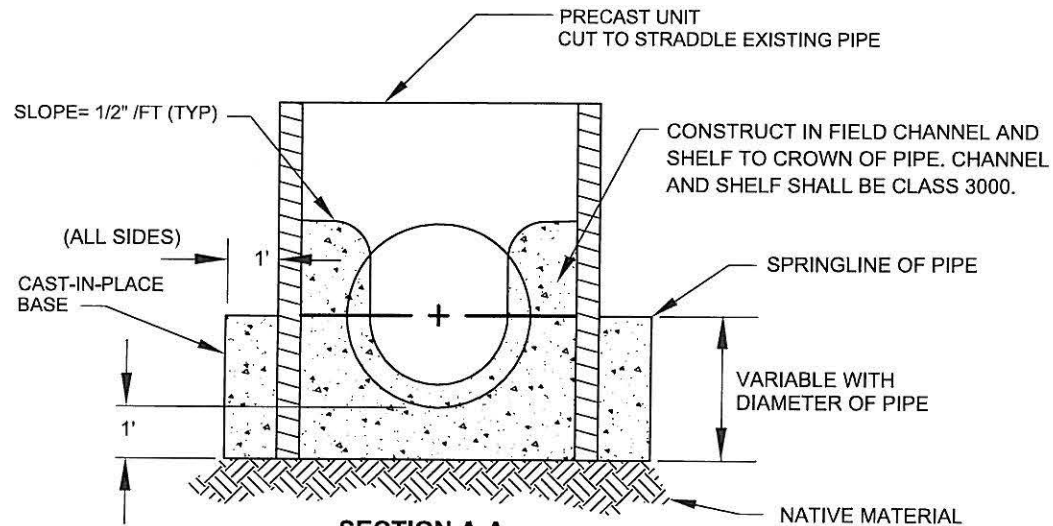
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MANHOLE-TYPE 1  
48", 54" AND 60"

STANDARD PLAN NO. SU-17



**TOP VIEW**



**SECTION A-A**

**NOTES:**

1. Existing pipe shall be supported at all times.
2. No weight of the precast unit shall bear on the existing pipe.
3. Concrete for cast-in-place base shall be Class 4000.
4. Cast-in-place base shall be poured to encase the precast unit.
5. Precast manhole section shall be installed in accordance with the Standard Plan for the specified manhole size and type.
6. Additional manhole sections shall not be installed until concrete base has set for 12 hours.
7. The existing main shall be left in place and the top portion of the main shall be removed. The bottom portion shall be tied in as the channel of the new manhole.
8. Grout all openings to ensure water tight structure.

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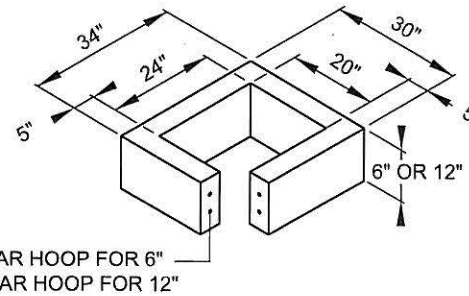
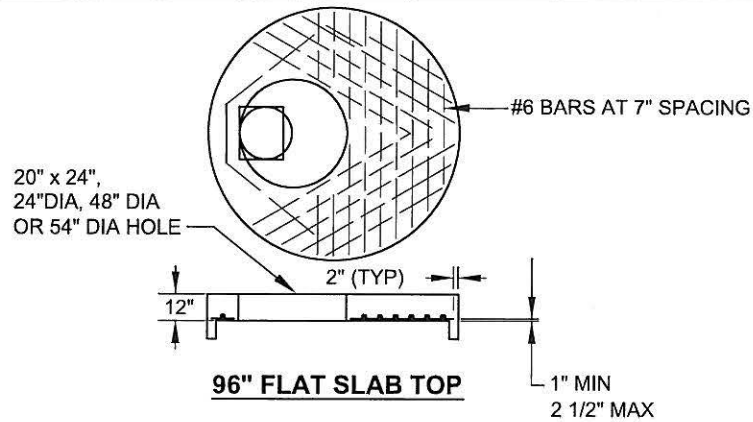
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*James Perry*  
CITY ENGINEER

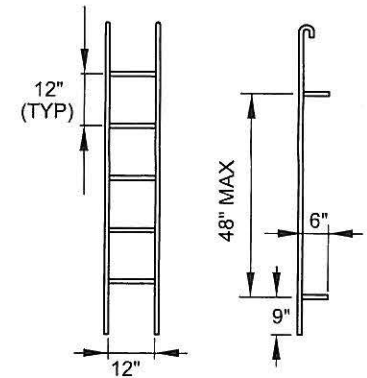
12 Jun 2009  
DATE

CAST-IN-PLACE  
MANHOLE BASE

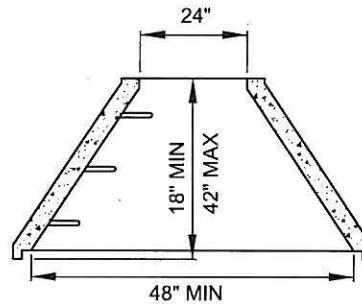
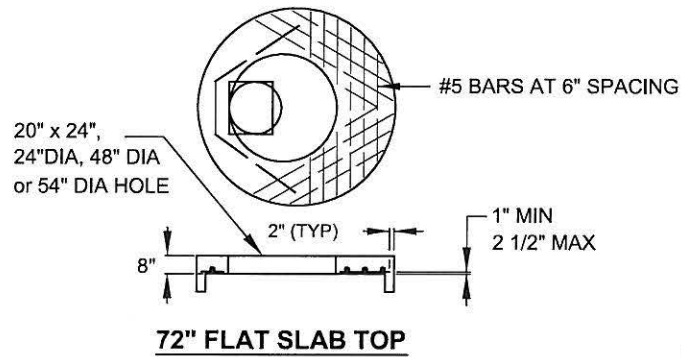
STANDARD PLAN NO. SU-20



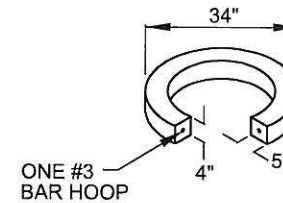
**RECTANGULAR ADJUSTMENT  
SECTION**



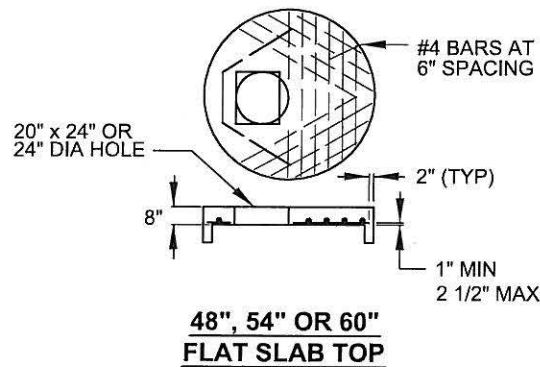
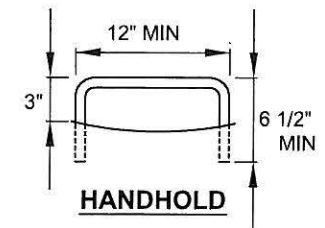
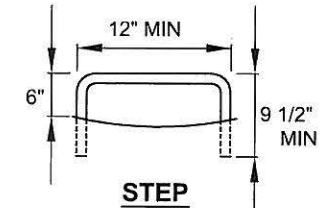
**PREFABRICATED LADDER**



**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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DEPARTMENT OF PUBLIC WORKS

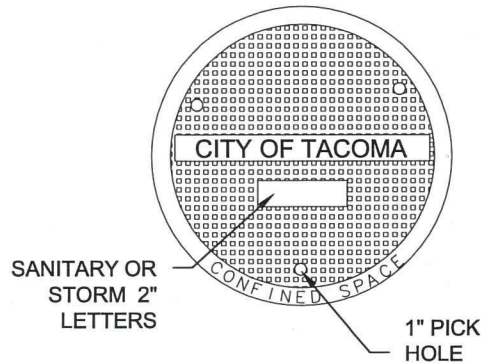
APPROVED FOR PUBLICATION

*James Pervey*  
CITY ENGINEER

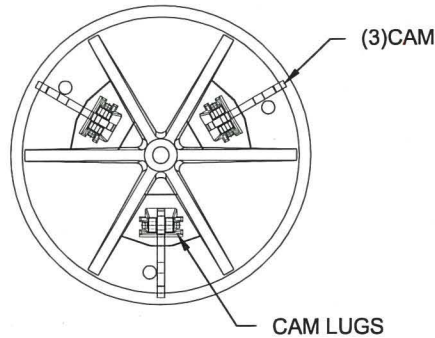
12 Jun 2009  
DATE

MISCELLANEOUS DETAILS  
FOR MANHOLES AND  
CATCH BASINS  
STANDARD PLAN NO. SU-21

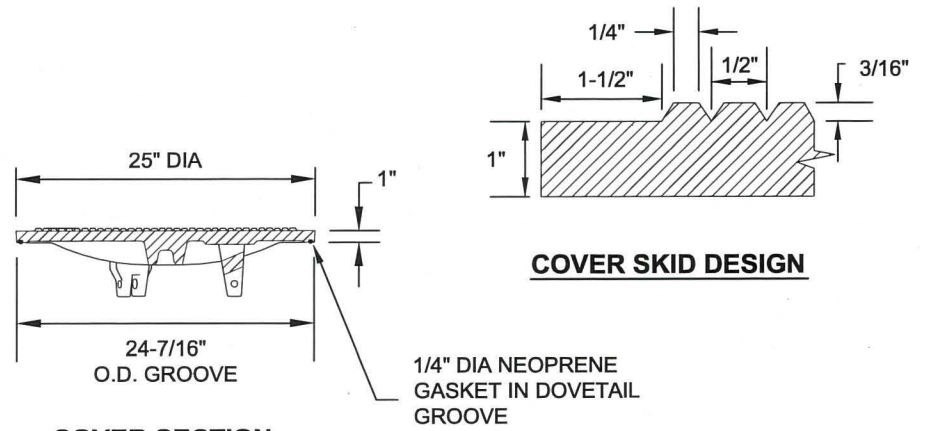




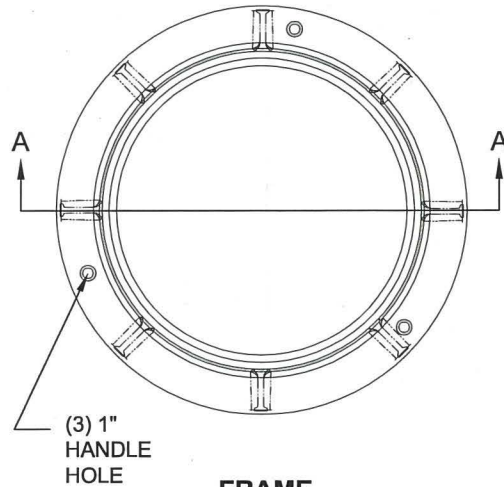
**PLAN VIEW**



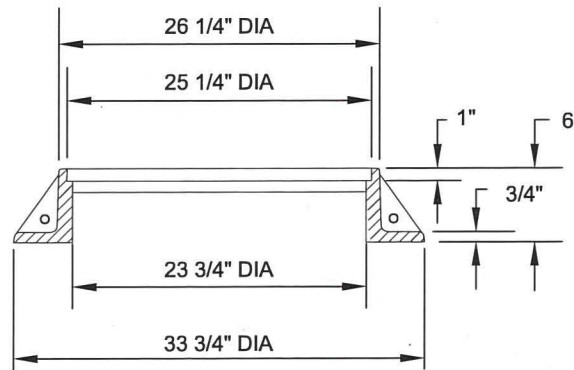
**BOTTOM VIEW**



**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.

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DEPARTMENT OF PUBLIC WORKS

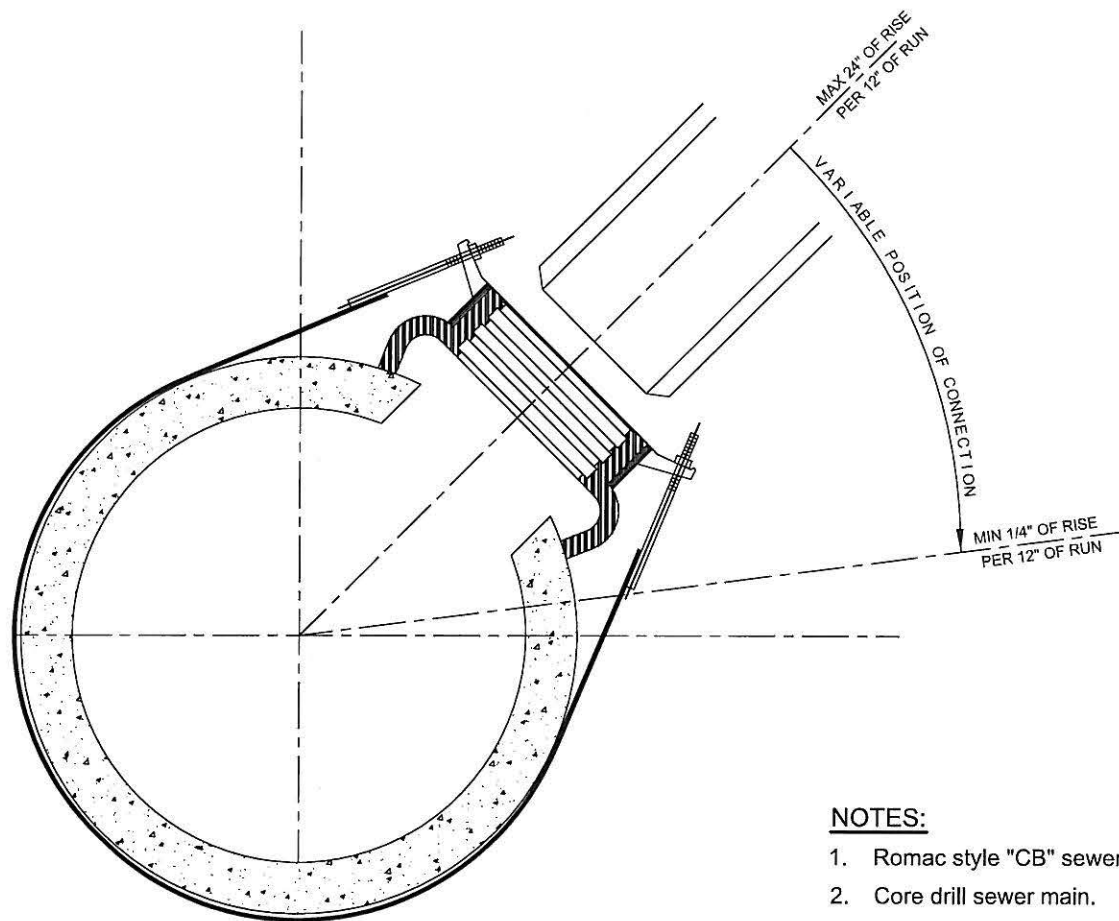
APPROVED FOR PUBLICATION

*[Signature]*  
CITY ENGINEER

*1/17/04*  
DATE

MANHOLE FRAME AND COVER

STANDARD PLAN NO. SU-22



**SANITARY SEWER MAIN  
CROSS SECTION**

**NOTES:**

1. Romac style "CB" sewer saddle or approved equal.
2. Core drill sewer main.
3. Portions of the City's sanitary sewer system have been lined. If a lined pipe is encountered during connection of the new side sewer, the Construction Division shall be contacted at (253) 591-5760 for further instructions.
4. Sewer laterals shall not extend beyond the interior wall of the sanitary sewer main.

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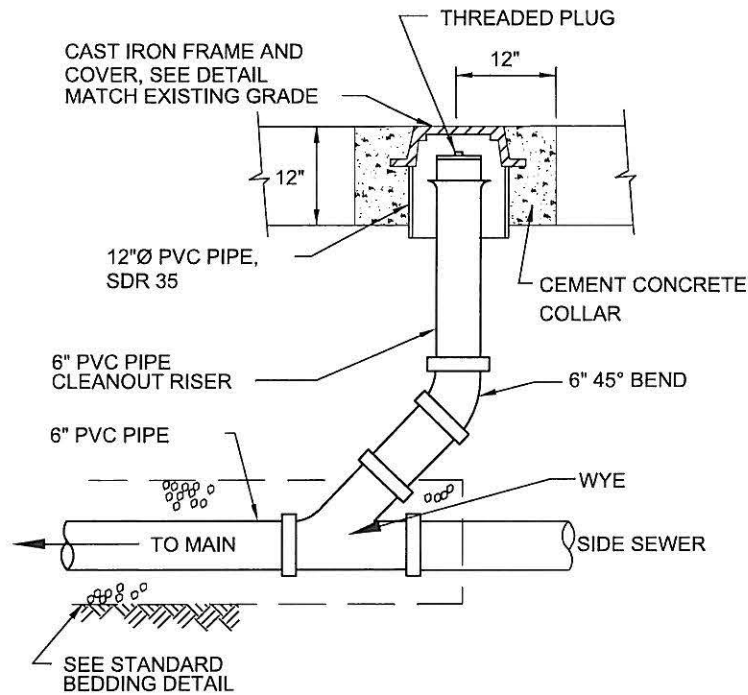
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*James Parvey*  
CITY ENGINEER

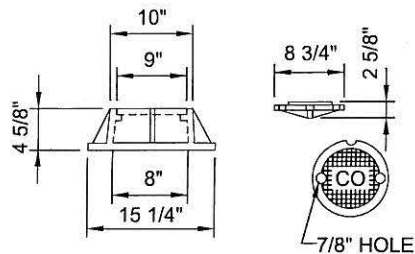
12 JUN 2009  
DATE

LATERAL  
SEWER CONNECTION TO  
SANITARY SEWER MAIN

STANDARD PLAN NO. SU-23



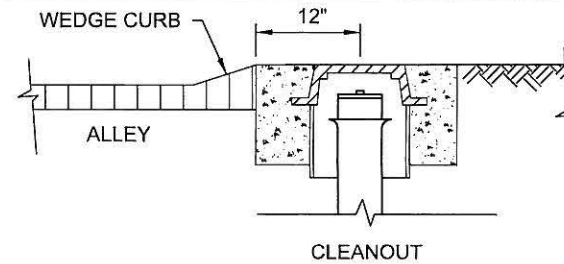
**CLEANOUT DETAIL**  
NOT TO SCALE



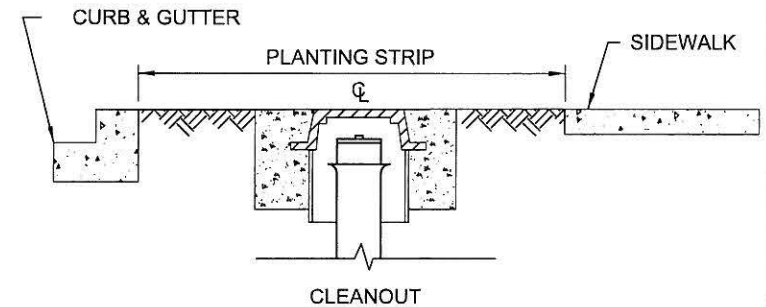
**FRAME AND COVER DETAIL**  
NOT TO SCALE

**NOTE:**

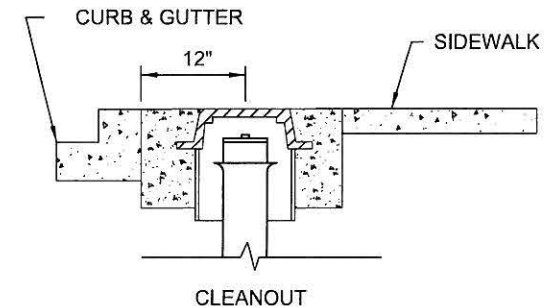
When no curb and gutter or sidewalk exist, locate cleanout in future planting strip.



**TYPICAL ALLEY SECTION**



**TYPICAL SIDEWALK SECTION**



**TYPICAL COMBINATION SIDEWALK SECTION**

**STANDARD CLEANOUT LOCATION**  
NOT TO SCALE

CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

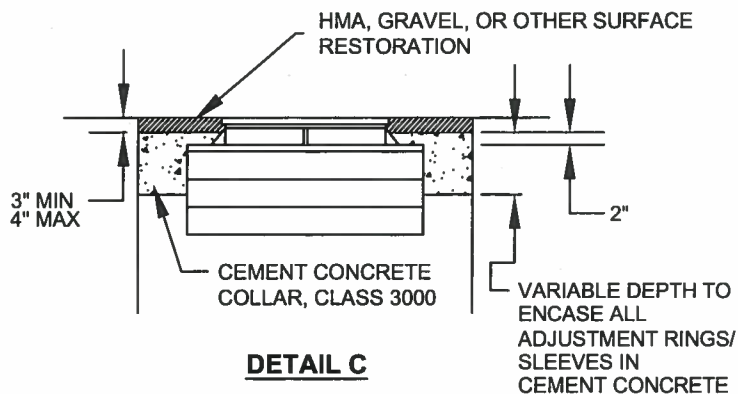
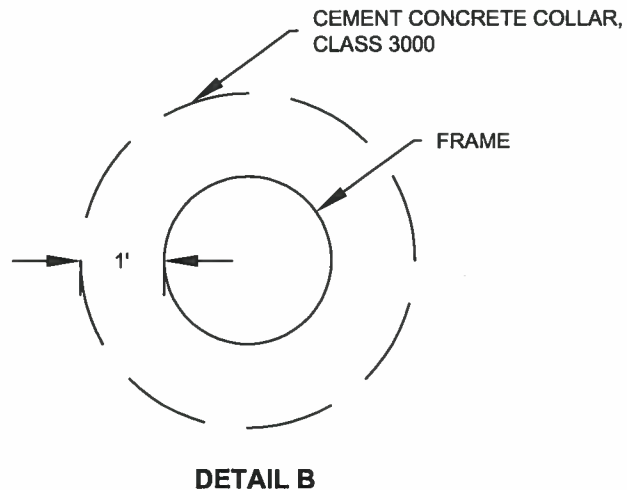
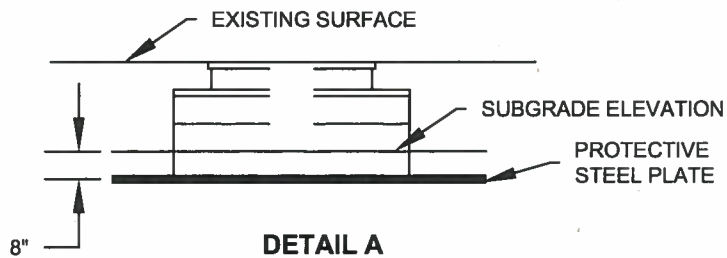
APPROVED FOR PUBLICATION

*James Parvey*  
CITY ENGINEER

12 Jun 2009  
DATE

SIDE SEWER CLEANOUT  
AND  
COVER DETAIL  
STANDARD PLAN NO. SU-24





### 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

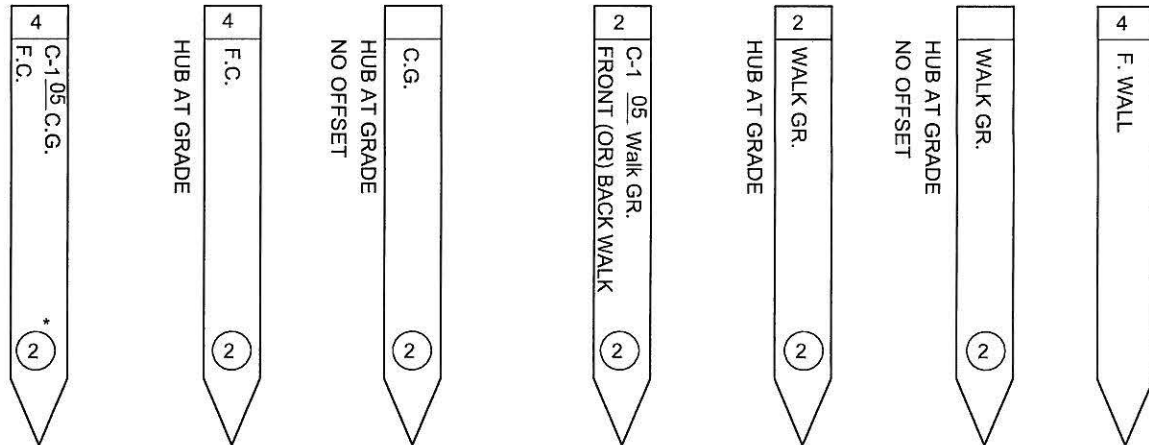
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UTILITY ADJUSTMENT

STANDARD PLAN NO. SU-25

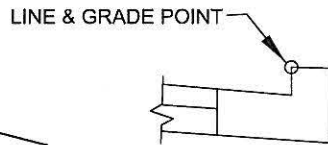
# **ABBREVIATIONS**

F.C.....	FACE OF CURB
C.G.....	CURB GRADE
F.L.....	FLOW LINE
F.WALL...	FACE OF WALL
SH.GR....	SHOULDER GRADE
C.B.....	CATCH BASIN
M.H.....	MAN HOLE
L.H.....	LAMP HOLE
S.G.....	SUBGRADE
B.G.....	BALLAST GRADE
CR.R.GR.	CRUSHED ROCK GRADE
P.C.....	POINT OF CURVATURE
P.T.....	POINT OF TANGENCY
V.C.....	VERTICAL CURVE
E.P.....	EDGE OF PAVING

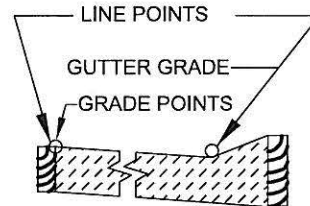


**STAKES SHALL HAVE STATIONS ON BACK SIDE**

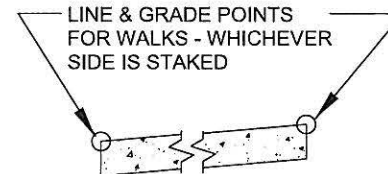
\* DESIGNATES DISTANCE FROM GUARD STAKE TO GRADE OR LINE HUB. (OPTIONAL)



**CURBS**

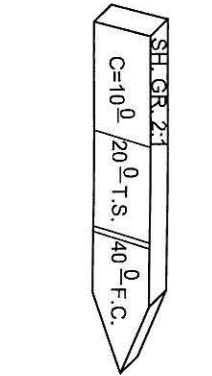


**ALLEY SLABS**

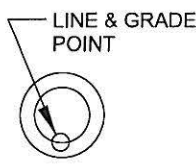
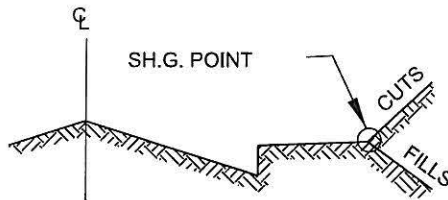


**WALKS**

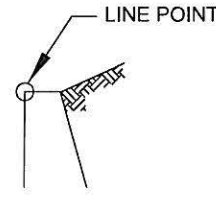
**SIDE OR BACK**



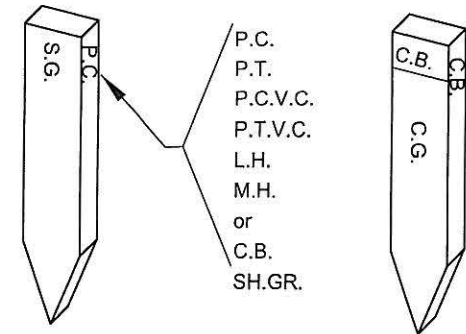
**SLOPE STAKES**



**SEWERS**



**WALLS**

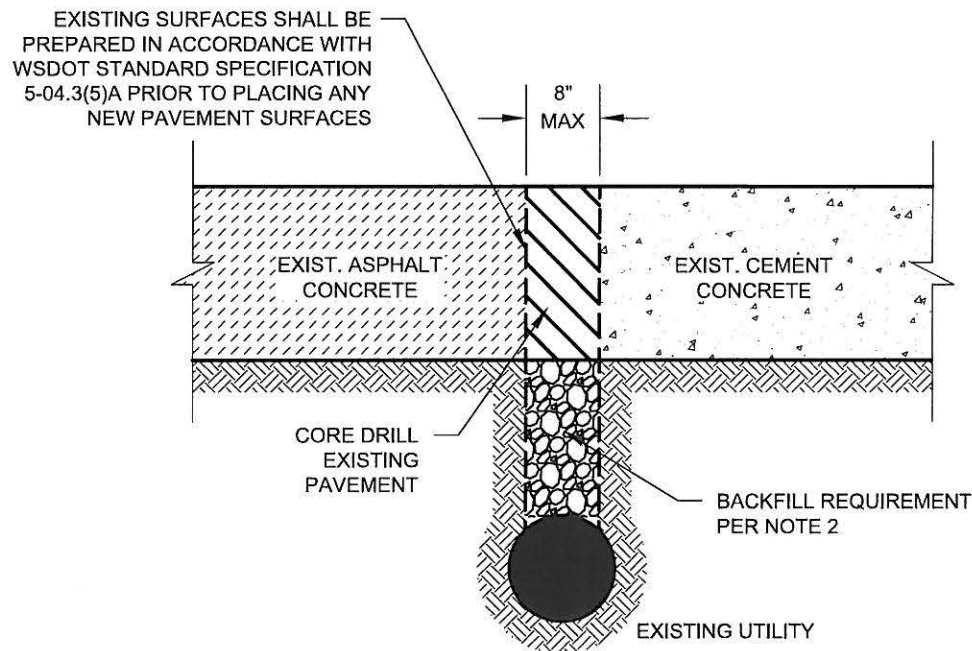


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**CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS**

*James Pomeroy* 12 Jun 2009  
CITY ENGINEER DATE

**STANDARD PROCEDURE  
FOR MARKING  
CONSTRUCTION STAKES**  
STANDARD PLAN NO. SU-26



**NOTES:**

1. The existing pavement shall be cut full depth with an eight inch diameter core drill. The subbase material shall be removed using a vacuum excavator, keeping the excavation as minimal as possible.
2. Backfill the excavation with a six inch cushion of crushed rock over the utility then place the remaining void with CDF or compacted CSTC.
3. For asphalt concrete streets, repair the cored pavement section with HMA Class  $\frac{1}{2}$ " PG 64-22 and seal the joint.
4. For cement concrete pavement streets, replace the cored section with Class 6000 cement concrete.
5. If excavation is larger than 8" core, restoration shall comply with the Right of Way Restoration Policy.

CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

APPROVED FOR PUBLICATION

*June Perrey* 12 Jun 2009  
CITY ENGINEER DATE

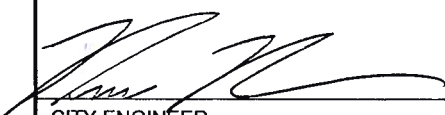
POTHOLING

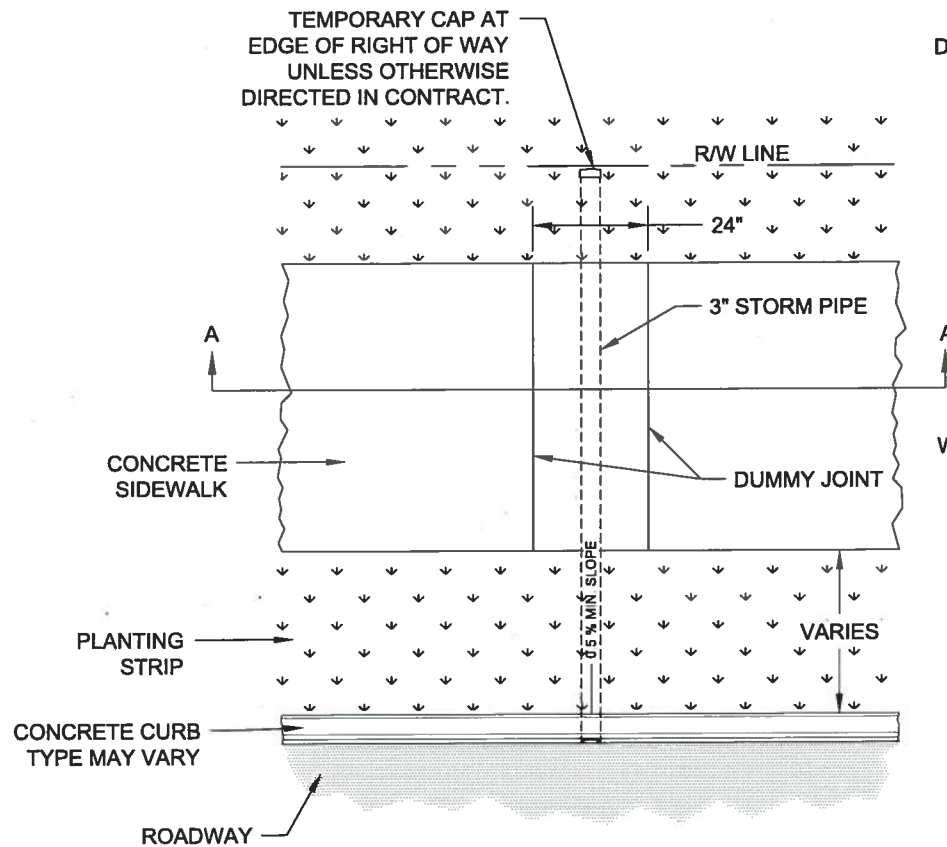
STANDARD PLAN NO. SU-27

COMPACTION TESTING REQUIREMENTS <sup>A</sup>		
DEPTH	TESTING FREQUENCY <sup>C</sup>	
	VERTICAL	HORIZONTAL
SURFACE (BELOW HMA)	N/A	1 TEST EVERY 150 LINEAR FEET OF TRENCH OR MINIMUM 2 PER TRENCH
		1 TEST FOR 150 SQUARE FEET FOR ISOLATED PATCHES <sup>B</sup>
1 TO 4 FEET (OR MIN 18 IN. ABOVE PIPE)	1 EVERY 12 INCHES	SAME AS FOR SURFACE
> 4 FEET TO BOTTOM OF TRENCH	NO SPECIFIC REQUIREMENT - MAY BE REQUIRED BY COT INSPECTOR FOR VERIFICATION OF COMPACTION	
A. TESTING SHALL BE PERFORMED BY A CERTIFIED INDEPENDENT TESTING LABORATORY OR A CERTIFIED TESTOR AS APPROVED BY THE CITY'S CONSTRUCTION DIVISION. THE COST OF TESTING IS THE RESPONSIBILITY OF THE PERMITTEE. TESTS SHALL BE COMPLETED AND REPORTS IDENTIFYING THE PROJECT NUMBER SUBMITTED TO THE CONSTRUCTION DIVISION WITHIN 48 HOURS OF TESTS.		
B. ONLY ONE COMPACTION TEST WILL BE REQUIRED FOR MULTIPLE TRENCHES WITHIN A 150 SF AREA PROVIDED COMPACTION PROCEDURES ARE THE SAME.		
C. EACH LIFT SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY, AS VERIFIED BY COMPACTION TESTING, BEFORE PROCEEDING TO THE NEXT LIFT. COT INSPECTOR MAY REQUIRE EXCAVATION AND REMOVAL OF SOIL WHERE COMPACTION IS IN QUESTION.		

**NOTES:**

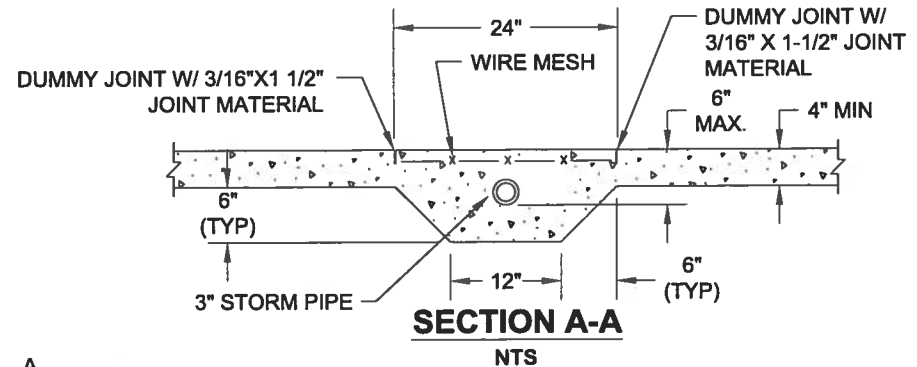
1. Compact backfill material in max. 12 in. lifts. Compact backfill material to 95% max. modified proctor density (ASTM 1557) except directly over pipe, hand tamp only.
2. Native backfill will require laboratory testing to determine max. modified proctor density. Imported backfill will require submittal of proctor test results from supplier.
3. See WSDOT Standard Specification Section 2-09.3(1)E for material requirements on "Controlled Density Fill" (CDF). CDF may be used for trenches less than 24 in. wide or as approved by the City Engineer. CDF shall be vibrated/compacted.

CITY OF TACOMA DEPARTMENT OF PUBLIC WORKS	APPROVED FOR PUBLICATION		TRENCH BACKFILL COMPACTION REQUIREMENTS	
	 CITY ENGINEER	11/30/14 DATE	STANDARD PLAN NO.	SU-28

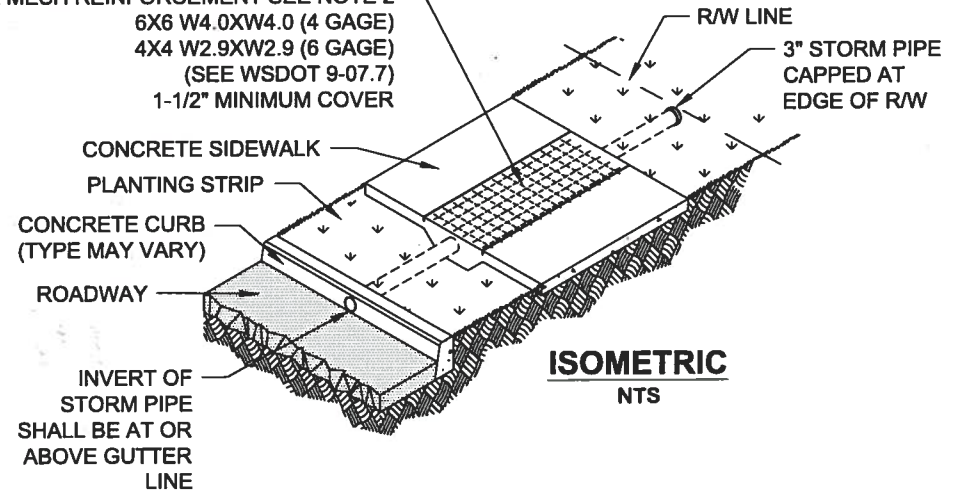


**PLAN**  
NTS

(REINFORCEMENT NOT SHOWN)



WIRE MESH REINFORCEMENT SEE NOTE 2  
6X6 W4.0XW4.0 (4 GAGE)  
4X4 W2.9XW2.9 (6 GAGE)  
(SEE WSDOT 9-07.7)  
1-1/2" MINIMUM COVER



**NOTES:**

1. For new pervious concrete sidewalk, place joint directly over centerline of pipe. When placing pipe under existing pervious sidewalk, restoration with impervious concrete will be allowed.
2. No mesh reinforcement to be used for pervious sidewalks.
3. Storm pipe shall be per the City Stormwater Management Manual Volume 3 for pipes within the right-of-way.

DCS

PUBLIC WORKS

NA

TACOMA POWER

REVIEWED BY

(-m)

ENVIRONMENTAL  
SERVICES

NA

TACOMA WATER



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*[Signature]*  
CITY ENGINEER

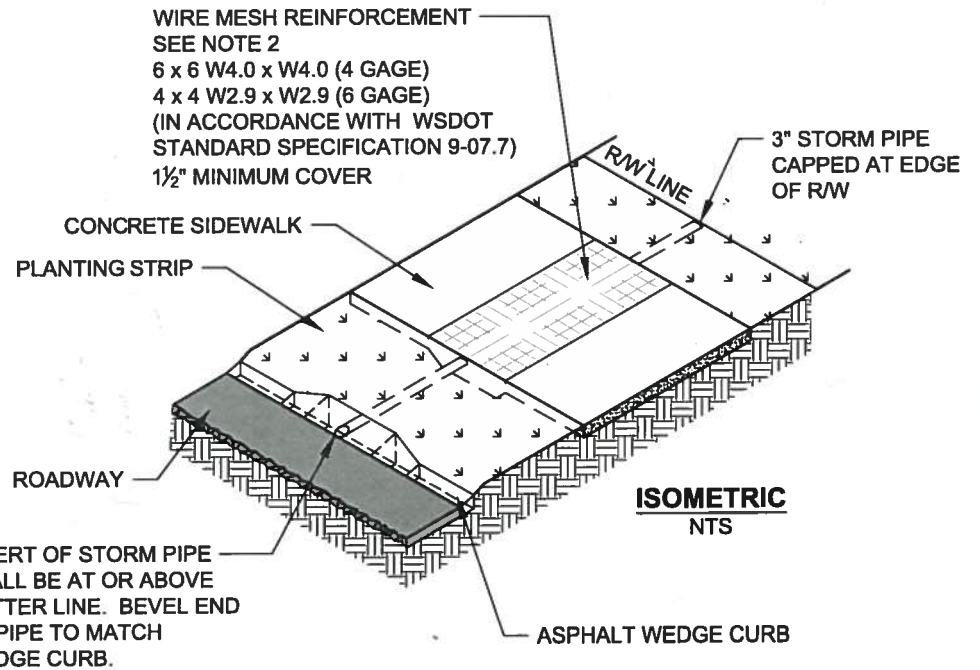
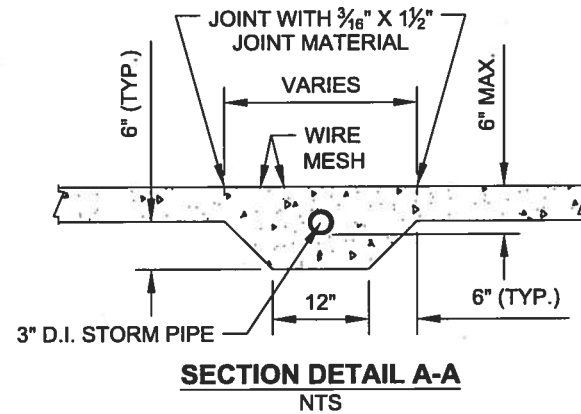
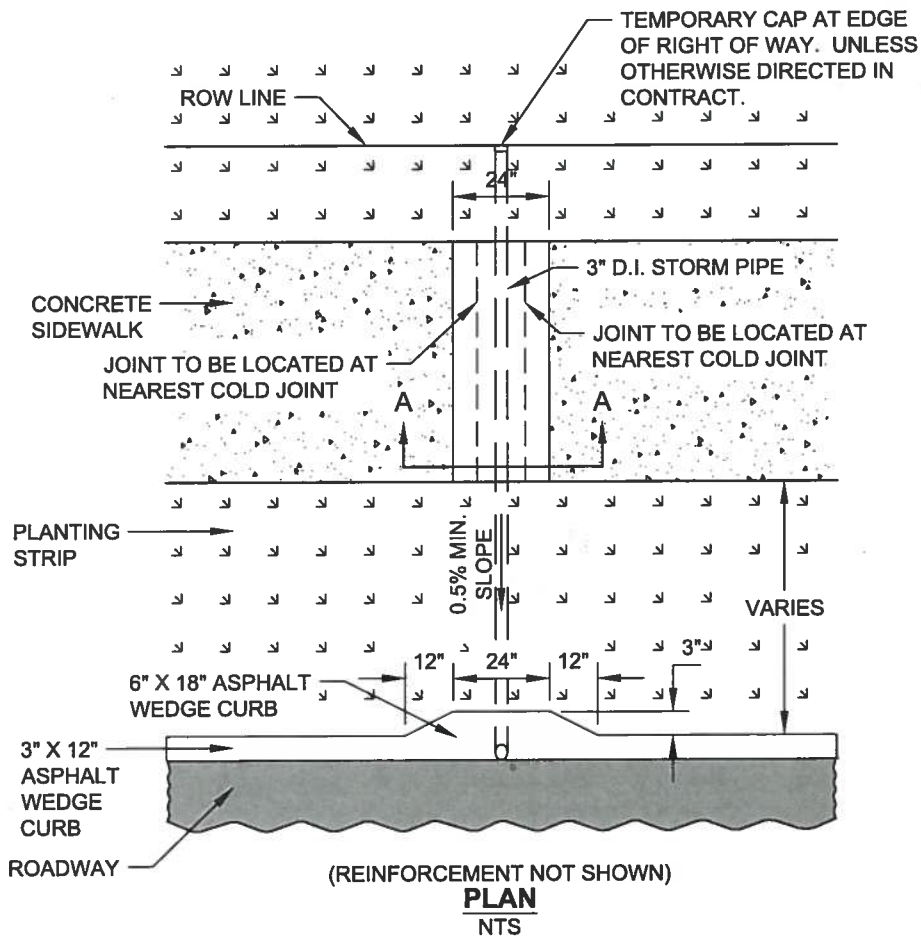
DATE

4/4/12

CITY OF TACOMA  
STORM PIPE THROUGH  
CONCRETE CURB

STANDARD PLAN NO.

SU-29



# NOTES

- For new pervious concrete sidewalk, place joint directly over centerline of pipe. When placing pipe under existing pervious sidewalk, restoration with impervious concrete will be allowed.
- No mesh reinforcement shall be used in pervious sidewalks.
- Storm pipe material shall be ductile iron per the City Stormwater Management Manual Volume 3, for pipes within the Right-of-Way.

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NA

TACOMA POWER

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GMS

ENVIRONMENTAL  
SERVICES

NA

TACOMA WATER



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CITY ENGINEER

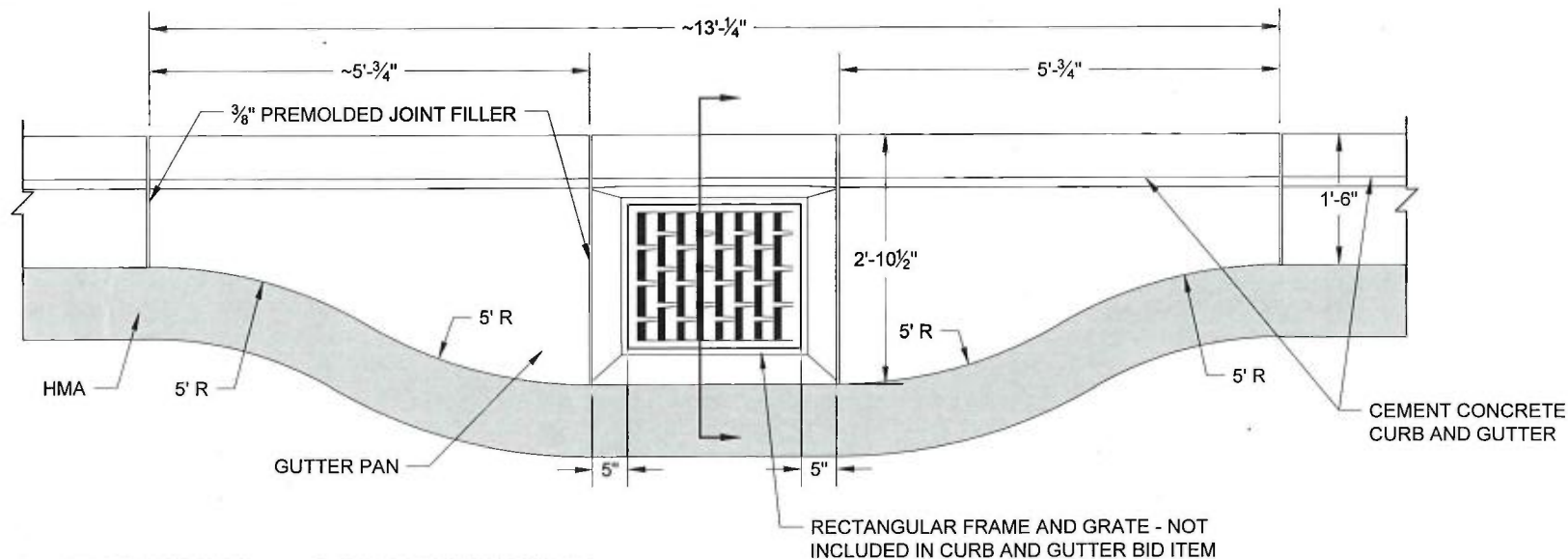
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4/4/15

CITY OF TACOMA  
STORM PIPE THROUGH  
ASPHALT WEDGE CURB  
CONNECTION

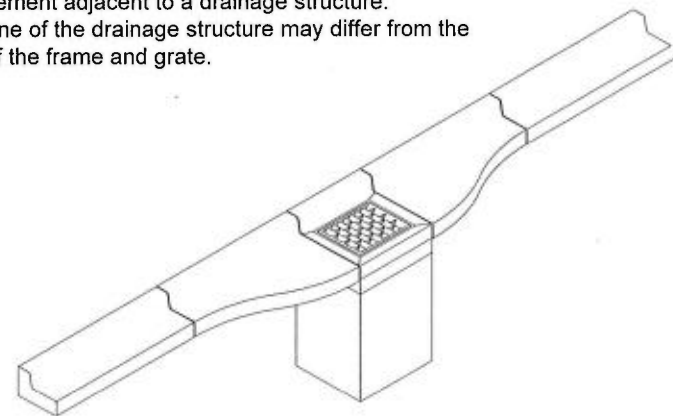
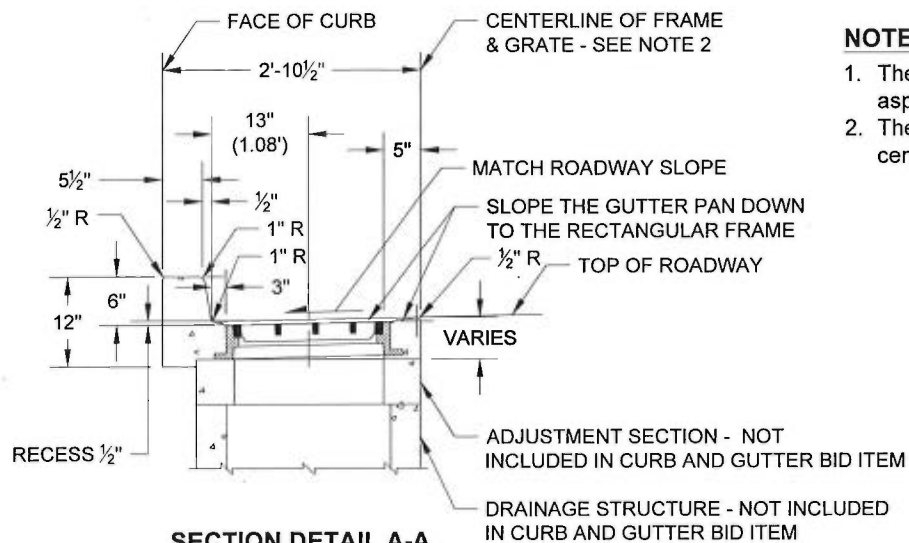
STANDARD PLAN NO. SU-29A





**NOTES:**

1. The intent of this design is to facilitate the compaction of hot mix asphalt pavement adjacent to a drainage structure.
2. The centerline of the drainage structure may differ from the centerline of the frame and grate.




### SECTION DETAIL A-A

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NA  
TACOMA POWER

REVIEWED BY	<u>GMS</u>
WORKS	ENVIRONMENTAL SERVICES
	<u>NA</u>
OVER	TACOMA WATER



APPROVED FOR PUBLICATION

 8/16/16  
CITY ENGINEER DATE

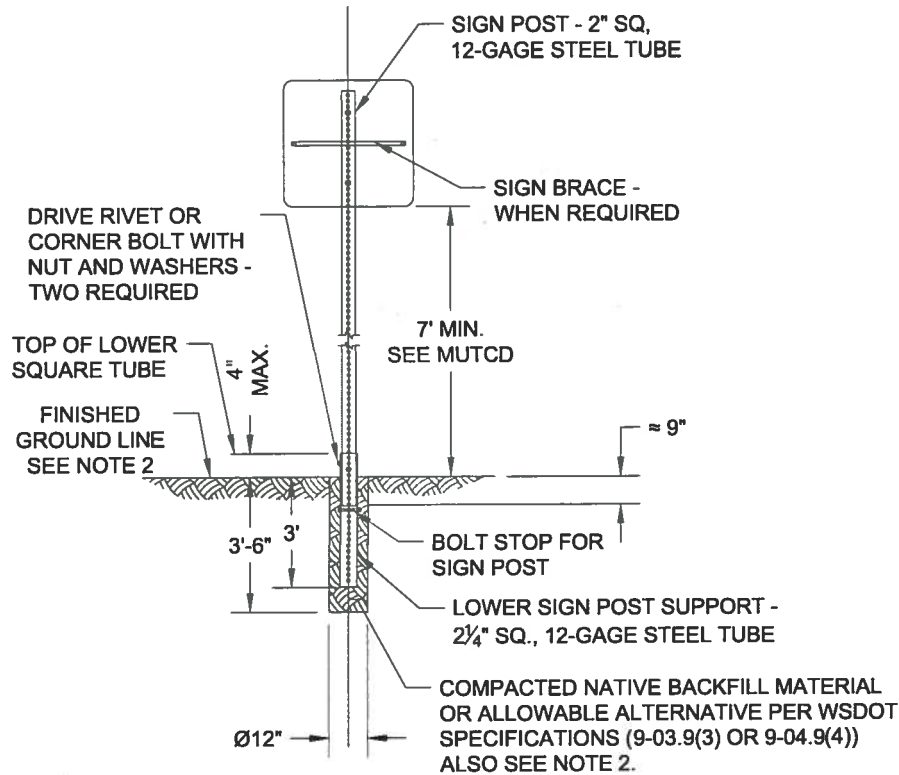
CITY OF TACOMA

### CEMENT CONCRETE CURB AND GUTTER PAN

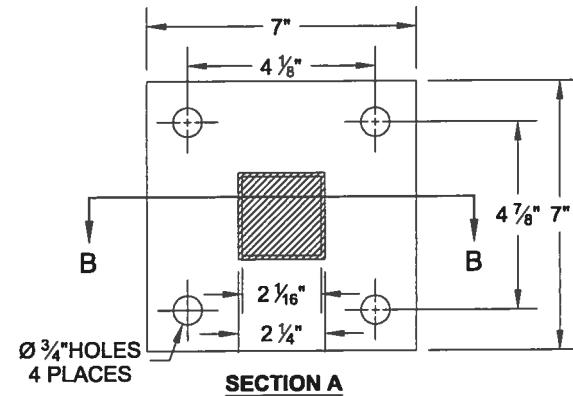
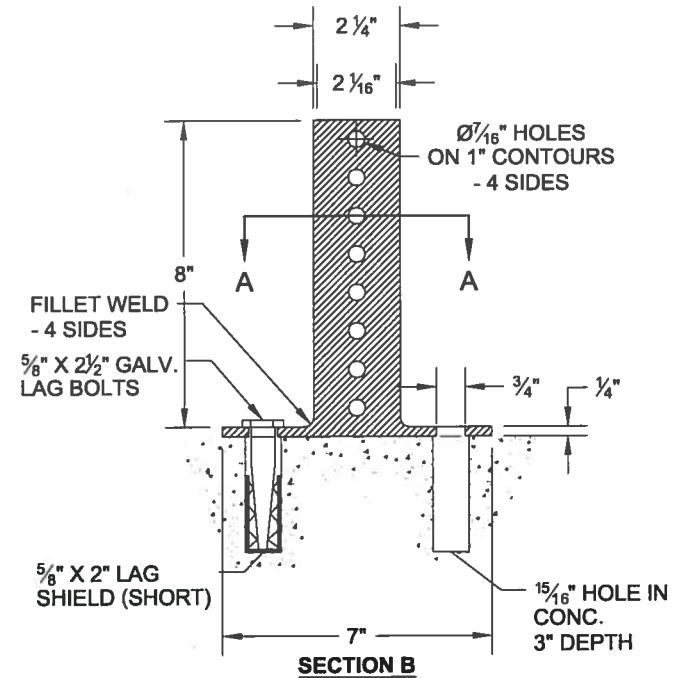
STANDARD PLAN NO. SU-30

**NOTES:**

1. Surface mounting of sign posts, especially within traffic islands or medians, is only allowable with special authorization from the city's traffic engineering group, (Exception: Surface mounting of flexible post object markers within islands or medians is permitted).
2. If finished ground line is a hard surface, then compacted native backfill material shall be concrete with the top of foundation being smooth, dense, and uniform to finished ground line.



**SIGN SUPPORT DETAIL  
FOR STEEL SIGN POST**



**BASE PLATE DETAIL FOR  
STEEL SIGN POST SURFACE MOUNTING  
(SEE NOTE 1)**

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PUBLIC WORKS  
NA  
TACOMA POWER

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ENVIRONMENTAL SERVICES  
NA  
TACOMA WATER



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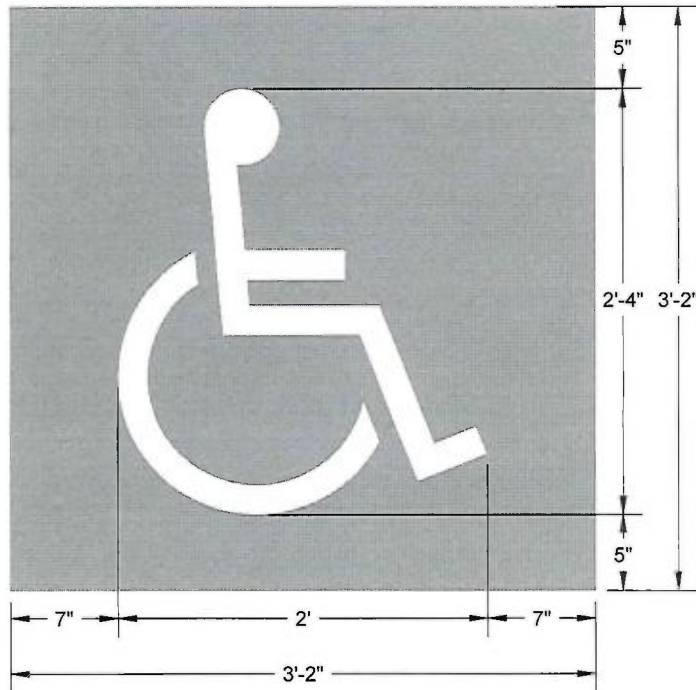
DATE

CITY OF TACOMA

SIGN POST  
INSTALLATION

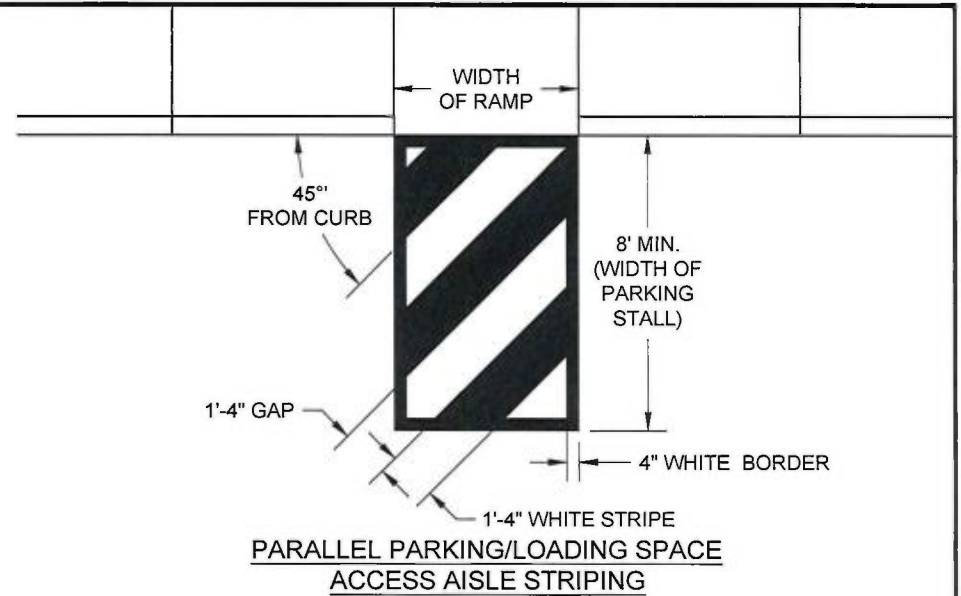
STANDARD PLAN NO. SU-34



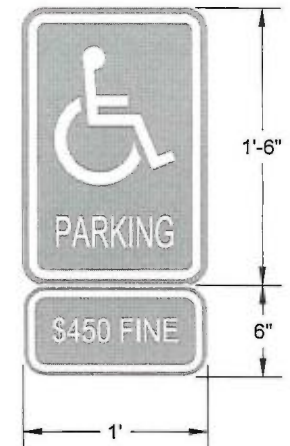


TOTAL MARKING AREA = 10 SQ. FT.  
WHITE = 1 SQ. FT.  
BLUE = 9 SQ. FT.

DISABILITY PARKING SPACE SYMBOL  
WITH OPTIONAL BLUE BACKGROUND



(BEGIN/END TIMES MAY VARY  
DEPENDING ON LOCATION)  
PASSENGER LOADING ZONE  
SIGN  
(RED ON WHITE)



DISABILITY PARKING STALL  
SIGNS  
(WHITE ON BLUE)

DCS  
PUBLIC WORKS

N/A  
TACOMA POWER

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GMS  
ENVIRONMENTAL  
SERVICES

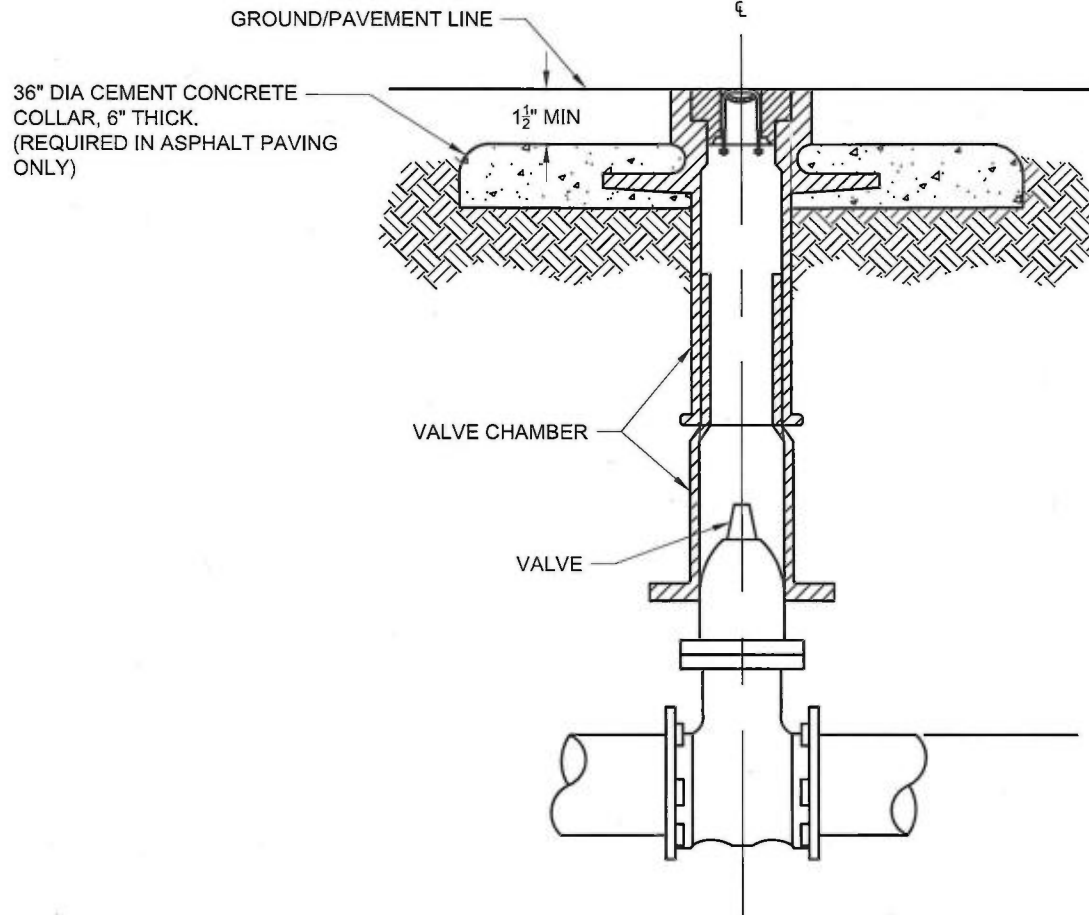
N/A  
TACOMA WATER



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[Signature] 8/22/17  
CITY ENGINEER DATE

CITY OF TACOMA  
DISABILITY PARKING &  
PASSENGER LOAD ZONE  
STRIPING & SIGNING DETAILS  
STANDARD PLAN NO. SU-36E



**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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PUBLIC WORKS

ENVIRONMENTAL  
SERVICES

N/A  
TACOMA POWER

G.W.  
TACOMA WATER



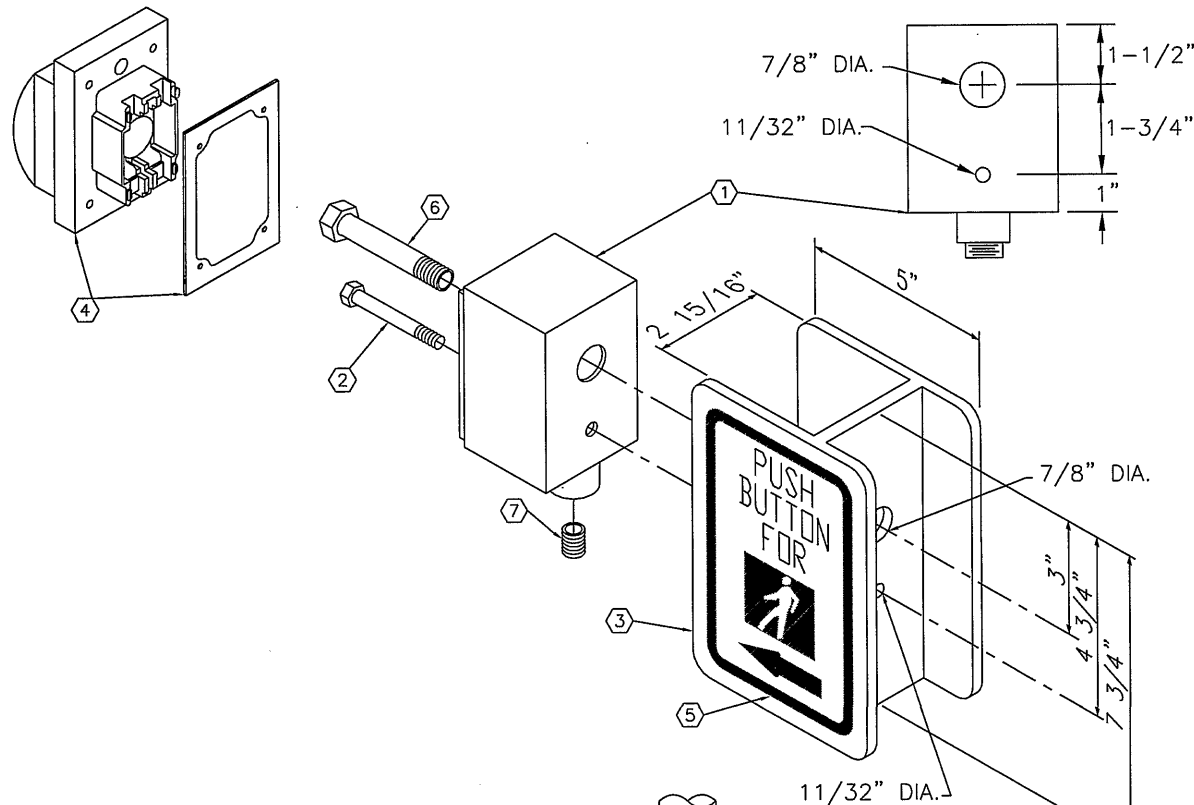
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CITY ENGINEER

5/31/12  
DATE

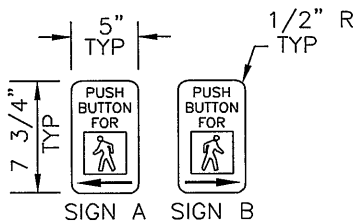
CITY OF TACOMA  
VALVE CHAMBER  
COLLAR DETAIL

STANDARD PLAN NO. SU-37



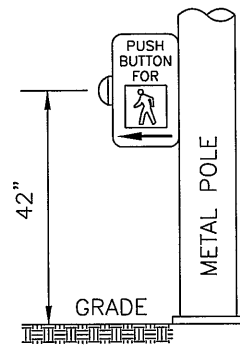
### CONSTRUCTION NOTES

- ① FD-1-50-A CAST ALUMINUM BOX
- ② 5/16 INCH STAINLESS HEX BOLT WITH LOCK WASHER. DRILL & TAP POLE FOR 5/16 INCH STAINLESS STEEL BOLT.
- ③ H-TYPE EXTRUDED ALUMINUM OR FABRICATED APPROVED EQUAL
- ④ BUTTON, PLATE, STAINLESS STEEL FASTENERS & GASKET. PUSHBUTTON MECHANISM MUST HAVE MINIMUM OF 1/8 INCH OVER TRAVEL. REES #1371-412 OR APPROVED EQUAL.
- ⑤ SIGN TO BE SCREENED ON BOTH FACES OF EXTRUDED ALUMINUM OR ON SEPARATE PANELS
- ⑥ 1/2 INCH CHASE NIPPLE W/NPT
- ⑦ 1/2 INCH ALUMINUM PLUG (DRILL 1/8 INCH DRAIN HOLE)



ONE EACH  
PER PUSHBUTTON  
ASSEMBLY  
R10-4B

### SIGN DETAILS



### TYPICAL INSTALLATION

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DEPARTMENT OF PUBLIC WORKS

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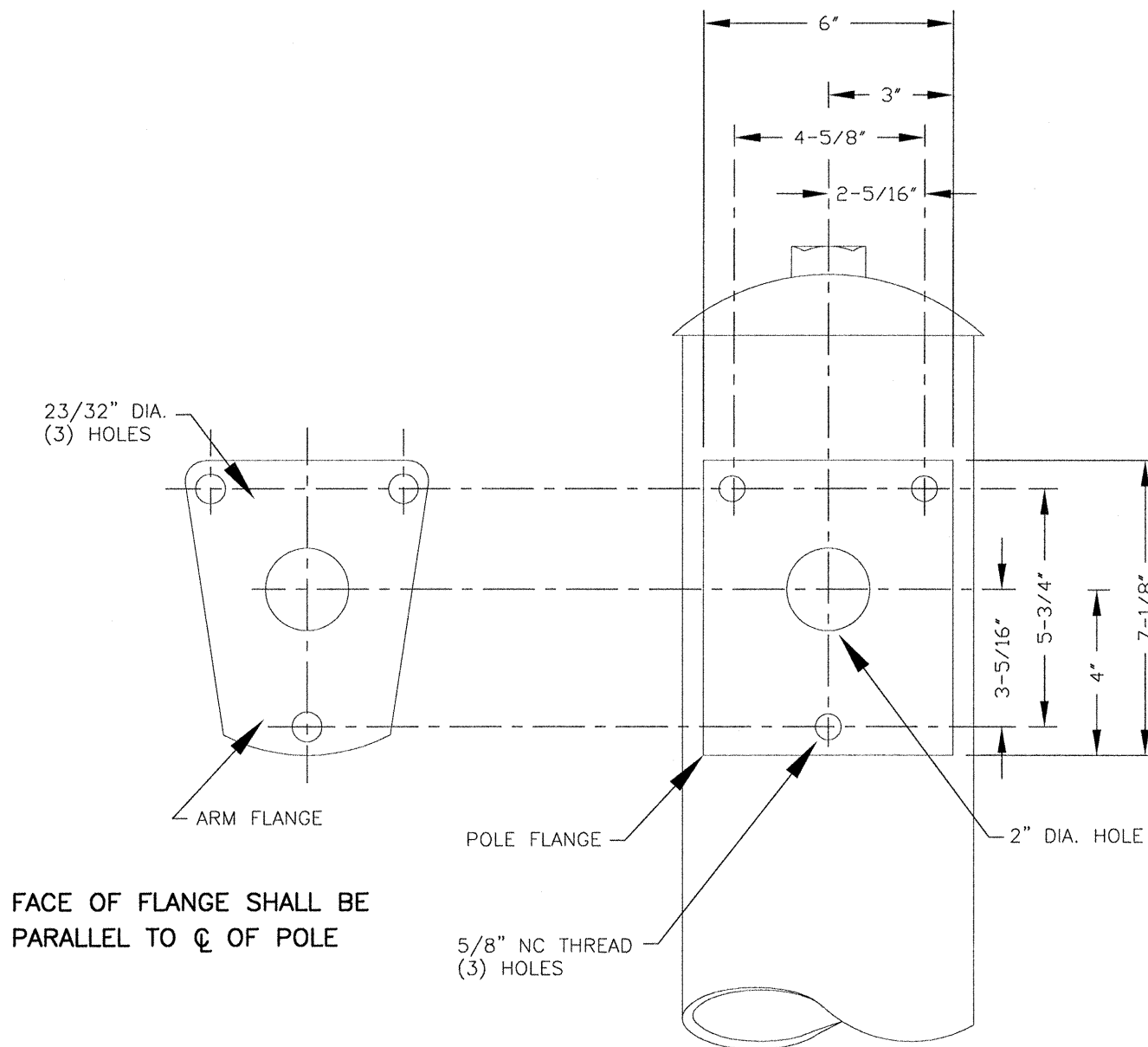
CITY ENGINEER

*[Signature]*

DATE 2/4/03

H-TYPE PEDESTRIAN  
PUSHBUTTON  
ASSEMBLY

STANDARD PLAN NO. TS-03



FACE OF FLANGE SHALL BE  
PARALLEL TO  $\phi$  OF POLE

CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

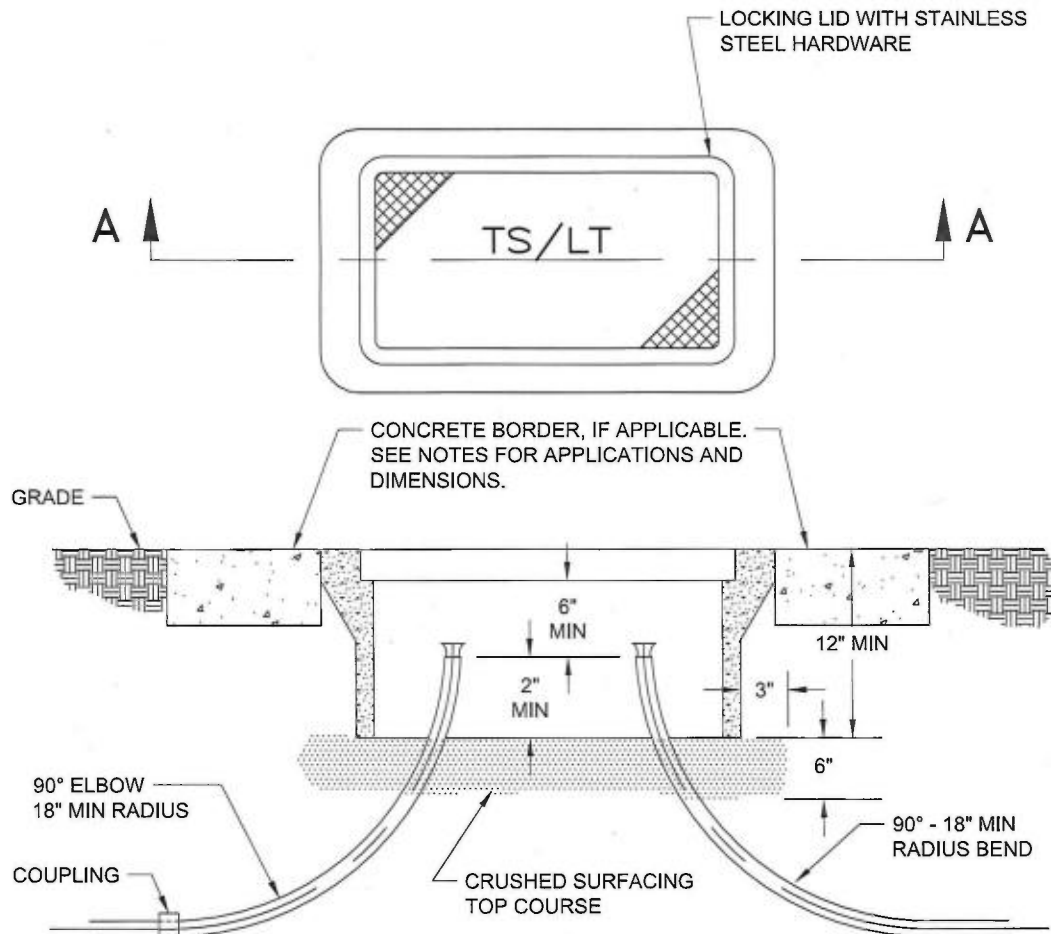
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CITY ENGINEER

DATE 2/4/03

STREETLIGHT  
MAST ARM MOUNTING  
FLANGE DETAIL

STANDARD PLAN NO. TS-07



SECTION A-A

**NOTES:**

1. Junction boxes shall be concrete and in conformance with WSDOT's Type 1 and 2 Locking Lid Standard Duty Junction Box. Box and lid will be load rated for traffic and shall have a nonskid surface. The lid shall be marked "TS", "LT", or other designation as called for on the proposal.
2. All junction boxes containing interconnect cable will be Type 2 or larger.
3. Boxes shall be set on a base of 6 inch crushed surfacing top course for drainage.
4. Metal lids will be grounded. Ground conductor shall be a minimum 24 inches long.
5. Care shall be taken to place junction boxes outside of areas heavily used by pedestrians, especially near crosswalks and corners.
6. Junction boxes shall not be placed in curb ramps or areas subject to vehicular traffic.
7. Adjacent junction boxes will be separated by a minimum of 3 inches.
8. Install pulling bells or bushings on conduit ends.

**CONCRETE BORDER APPLICATION AND DIMENSION:**

1. For junction boxes bordered by less than 12 inches wide of concrete or asphalt section, a concrete border is required.
2. Junction boxes located in asphalt will be secured on all sides with a minimum 12 inch wide by 6 inch deep concrete section.
3. Junction boxes located in concrete will be secured on all sides with a minimum 12 inch wide concrete section. The depth of the concrete shall meet the depth of the adjacent concrete. The concrete will be finished in the same manner as the adjacent concrete, where applicable.
4. Junction boxes located in a planter strip, landscaped area, or other non-hardened surface will be secured on all sides with a minimum 6 inch wide by 12 inch deep concrete section flush with the top of the junction box.

DCS

PUBLIC WORKS

N/A

TACOMA POWER

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ENVIRONMENTAL  
SERVICES

N/A

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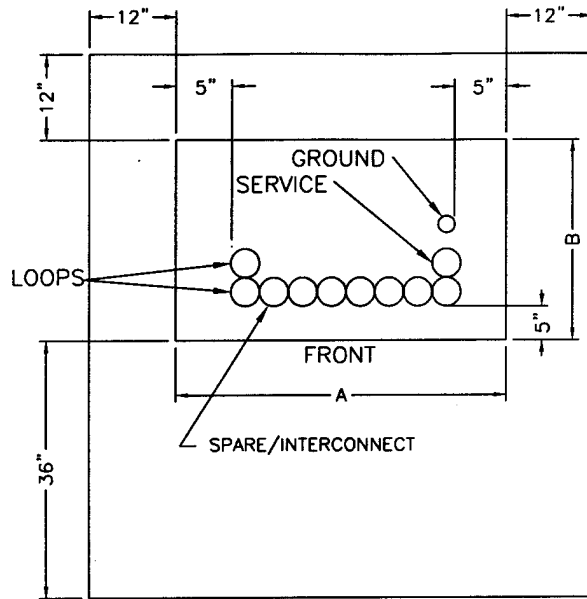
CITY ENGINEER

5/31/17

DATE

CITY OF TACOMA  
JUNCTION BOX  
INSTALLATION  
TYPICAL

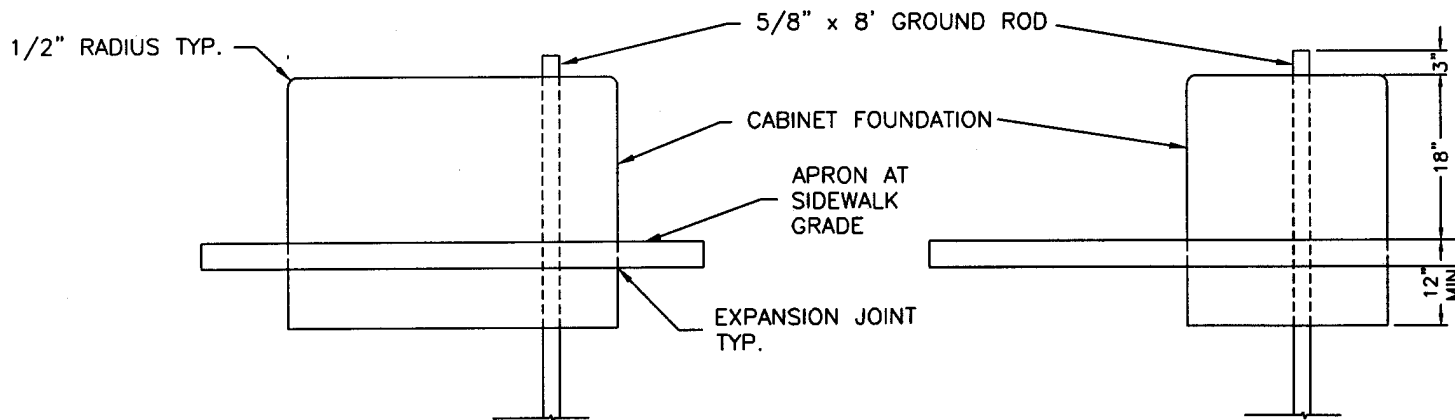
STANDARD PLAN NO. TS-08



**PLAN VIEW**

**NOTES:**

1. CONDUIT SHALL HAVE MINIMUM 18" RADIUS BENDS.
2. CONDUITS SHALL EXTEND 1" ABOVE TOP OF BASE. INSTALL PULLING BELLS ON CONDUIT ENDS.
3. CONDUITS TO BE INSTALLED PER ENGINEER'S INSTRUCTIONS.
4. 15 FEET OF SLACK CABLE SHALL BE PROVIDED AT THE CONTROLLER END OF ALL CABLES TERMINATING IN THE CONTROLLER CABINET.
5. CABINET ANCHORS SHALL BE EXPANSION ANCHORS (5/8" x 4-1/2").
6. 4" THICK CONCRETE APRON SHALL EXTEND 12" AROUND REAR AND SIDES AND 36" IN FRONT. INSTALL EXPANSION JOINT BETWEEN FOUNDATION AND APRON.



**FRONT VIEW**

**SIDE VIEW**

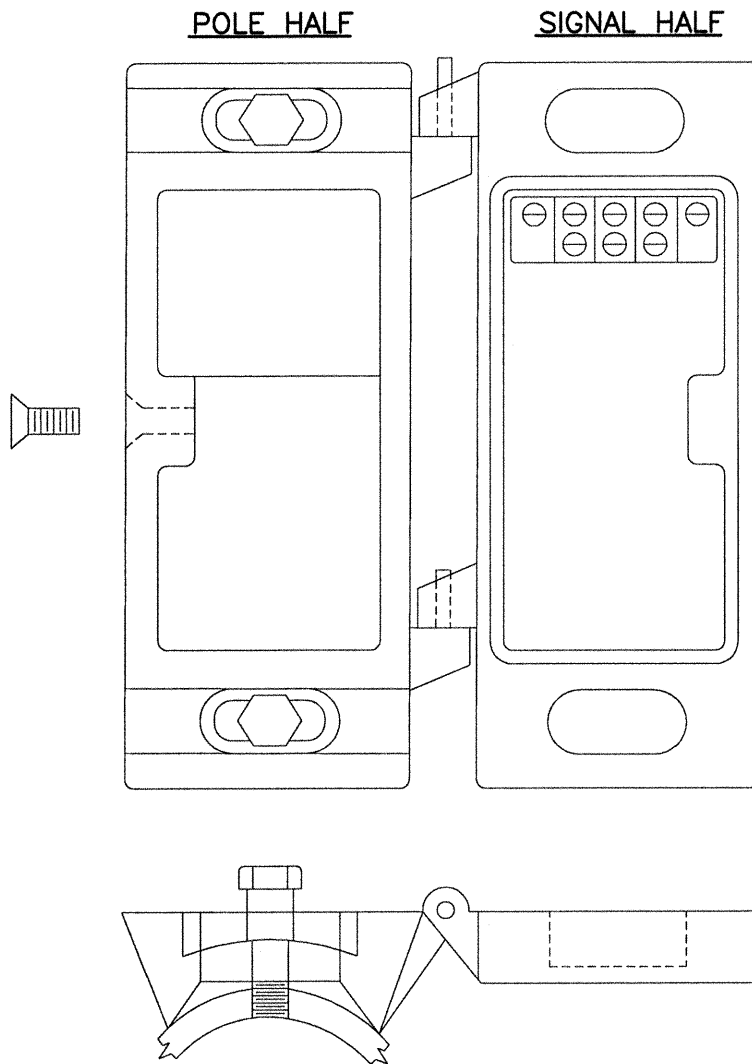
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DEPARTMENT OF PUBLIC WORKS

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CITY ENGINEER

DATE

FOUNDATION & APRON FOR  
"M" AND "P"  
CONTROLLER CABINETS  
STANDARD PLAN NO. TS-10



**MATERIAL:**

CAST ALUMINUM ALLOY

**STANDARD PAINT FINISHES:**

DARK OLIVE GREEN

**DIMENSIONS:**

11-1/4" H MAXIMUM x5-1/2" W MAXIMUM x2-3/4 D MAXIMUM

**WEIGHT:**

TOTAL WEIGHT SHALL NOT EXCEED 7-1/2 LBS.

**CONSTRUCTION:**

THE CLAMSHELL CONSISTS OF A TWO PART MOUNTING ASSEMBLY. THE HINGE PINS ON THE POLE MOUNTED HALF SHALL BE STAINLESS STEEL AND FIT INTO THE EARS ON THE SIGNAL MOUNTED HALF.

**MOUNTING:**

THE POLE HALF OF THE ASSEMBLY SHALL BE DESIGNED TO FIT THE CURVATURE OF POLES 4" IN DIAMETER AND LARGER.

THE CLAMSHELL SHALL BE MECHANICALLY DESIGNED TO ALLOW FOR VARIOUS TYPES OF MOUNTING SUCH AS BANDING, THRU-BOLT OR LAG SCREW MOUNTING. THE BOLT HOLES SHALL BE ELONGATED HORIZONTALLY TO ALLOW FOR ROTATION ON THE POLE.

THE SIGNAL HALF OF THE ASSEMBLY SHALL BE SECURED TO THE POLE HALF THROUGH USE OF A FLATHEAD SOCKET BOLT AND TIGHTENED USING A 3/16" ALLEN WRENCH.

THE POLE HALF SHALL BE MOUNTED TO THE STRAIN POLE USING BOLTS EXCEPT AS DIRECTED BY THE ENGINEER.

THE BOTTOM OF THE PEDESTRIAN SIGNAL HEAD SHALL BE 8' ABOVE THE FINISHED SIDEWALK GRADE.

**WIRING:**

THE FIELD WIRING SHALL BE TERMINATED ON A HORIZONTALLY MOUNTED 3 POSITION TERMINAL BLOCK LOCATED IN THE UPPER HALF OF THE SIGNAL HALF.

**MISCELLANEOUS:**

A NEOPRENE GASKET WILL PROVIDE A RAIN-TIGHT SEAL

DRILL AND TAP HOLE IN STEEL POLE FOR 3/4" INSULATED CHASE NIPPLE FOR WIRING.

CITY OF TACOMA  
DEPARTMENT OF PUBLIC WORKS

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CITY ENGINEER

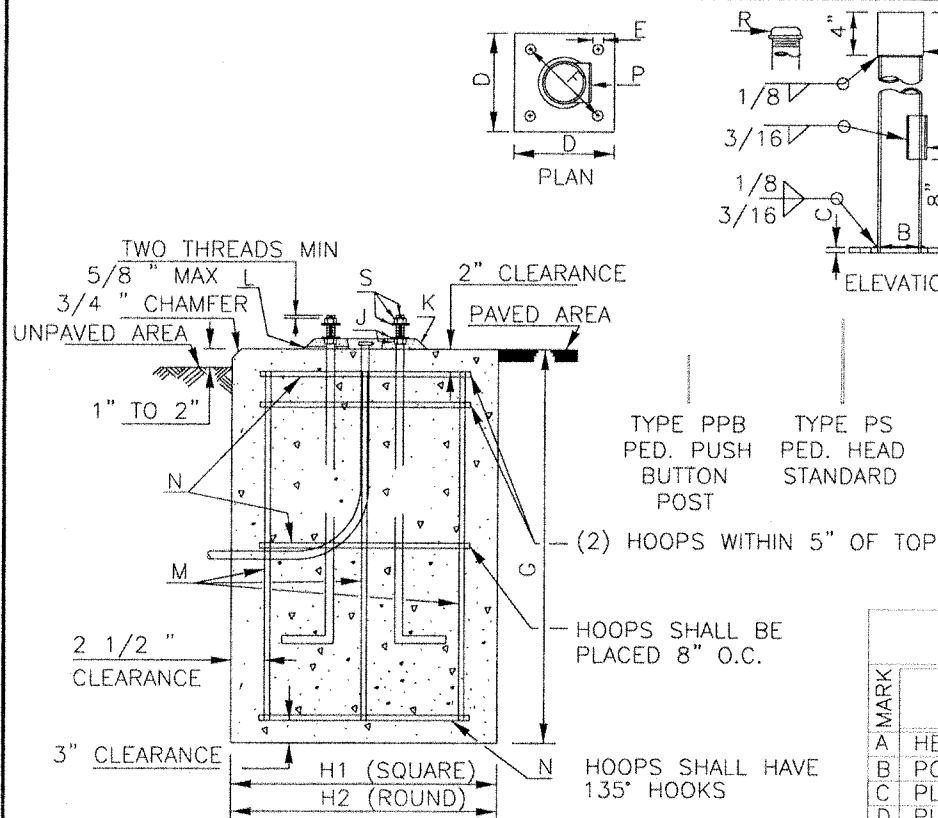
DATE 2/4/03

PEDESTRIAN SIGNAL  
CLAMSHELL POLE  
MOUNTING DETAIL

STANDARD PLAN NO. TS-12

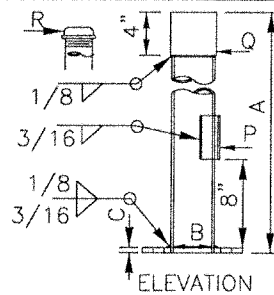


TYPE PPB, PS, I, RM, & FB STANDARD DETAILS



## FOUNDATION DETAILS

ANCHOR BOLT, NUT, & WASHER SIZES		
MARK	STANDARD	DIMENSIONS
S	TYPE PPB	4 - 1/2" DIA x 12" x 2"
S	TYPE PS & I	4 - 3/4" DIA x 30" x 4"
S	TYPE FB & RM	3 - 3/4" DIA x 30" x 4"



TYPE PP  
PED. PUS  
BUTTON  
POST

TYPE PS  
PED. HEAD  
STANDARD

TYPE I & RM  
VEHICLE HEAD  
AND RAMP METER  
STANDARD

TYPE FB  
FLASHING  
BEACON  
STANDARD

TYPE II  
MAST ARM  
STANDARD

TYPE III  
LIGHTING AND  
MAST ARM  
STANDARD

TYPE IV  
STRAIN POLE  
STANDARD

# TYPE V LIGHTING AND STRAIN POLE STANDARD

## SIGNAL STANDARD TYPE DESIGNATIONS

TYPE PPB, PS, I, RM & FB STANDARD DIMENSION CHART

MARK	ITEM	TYPE PPB	TYPE PS	TYPE I	TYPE RM	TYPE FB
A	HEIGHT	4"-6"	8'-0"	10'-0"	SHEET 2	SHEET 2
B	POLE BASE DIA	2 1/2 "	*	*	*	*
C	PLATE THICKNESS	1/2 "	1/2 "	1/2 "	SHEET 2	SHEET 2
D	PLATE WIDTH	5"	9"	9"	SHEET 2	SHEET 2
E	HOLE DIA	5/8 "	1"	1"	SHEET 2	SHEET 2
F	BOLT CIRCLE	4 1/2 "	8 1/2 "	8 1/2 "	SHEET 2	SHEET 2
G	FOUNDATION DEPTH	1'-6"	3'-0"	3'-0"	3'-0"	3'-0"
H1	FOUNDATION WIDTH	1'-6"	2'-0"	2'-0"	2'-0"	2'-0"
H2	FOUNDATION DIA	2'-0"	2'-3"	2'-3"	2'-3"	2'-3"
J	NUT & WASHER	FOUR 1/2 "	3/4 "	3/4 "	3/4 "	3/4 "
K	GROUT PAD THICKNESS	NONE	**	**	SHEET 2	SHEET 2
L	PLASTIC DRAIN TUBE DIA	NONE	3/8 "	3/8 "	3/8 "	3/8 "
M	VERTICAL RE-BAR	NONE	EIGHT #4	EIGHT #4	EIGHT #4	EIGHT #4
N	HORIZ. RE-BAR HOOP	NONE	SIX #4	SIX #4	SIX #4	SIX #4
P	HANDHOLE SIZE	NONE	3-1/2"x4"	3-1/2"x4"	3-1/2"x4"	3-1/2"x4"
Q	SLIPFITTER DIA (I.D.)	NONE	4"	4"	4"	4"
R	CAP DIA	2 1/2 "	NONE	NONE	NONE	NONE

\* TAPERED ROUND OR OCTAGONAL SHAFT, 11 GAGE, 4" OD AT SLIPFITTER WELD.

\*\* LEVELING NUT HEIGHT 1" MAXIMUM.

LEVELING NUTS NOT REQUIRED FOR TYPE PPB STANDARD

TAPER = 0.14 INCHES/FT.

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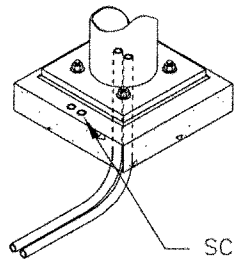
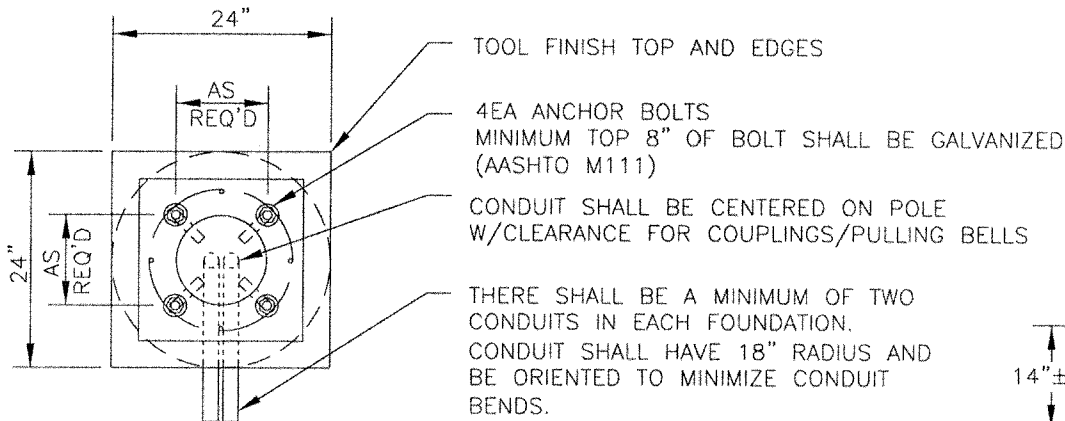
CITY ENGINEER

DATE 2/4/03

## SIGNAL STANDARD TYPE DESIGNATIONS AND TYPE PPB, PS, I, RM, & FB DETAILS

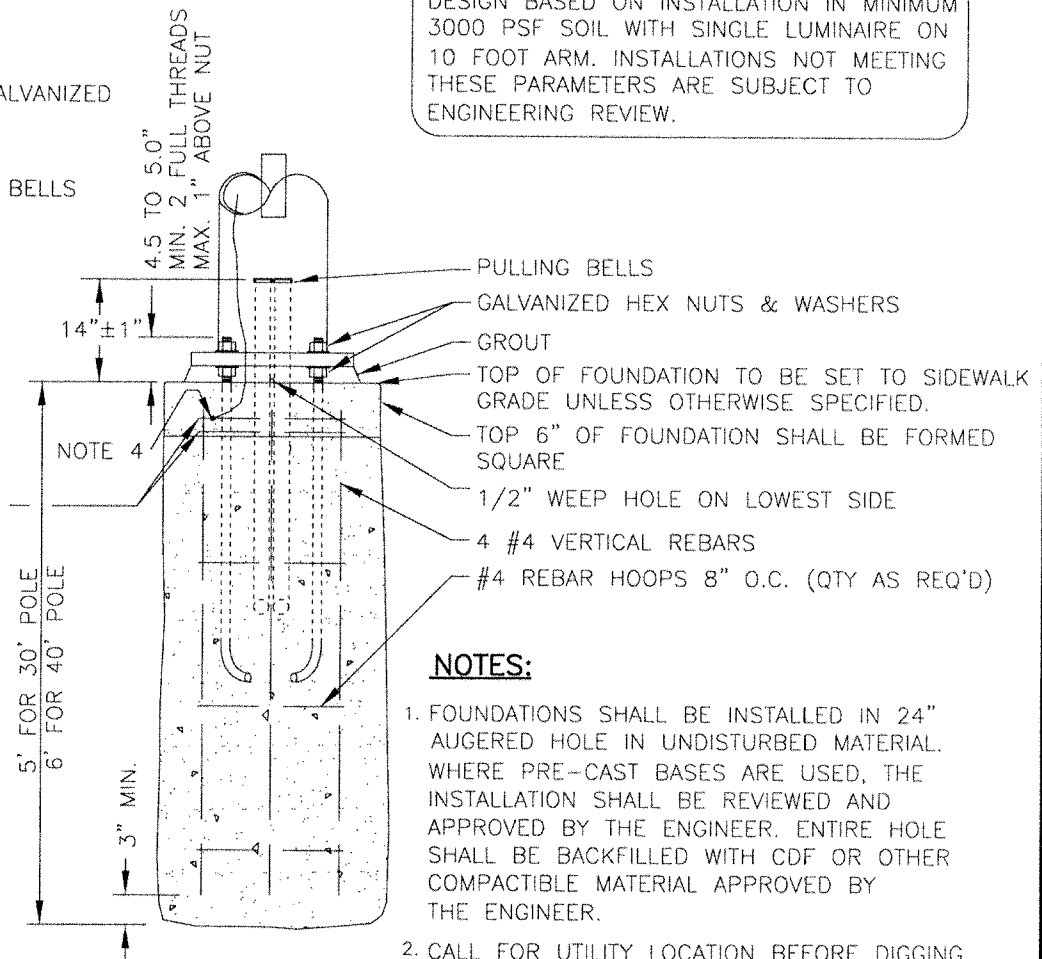
STANDARD PLAN NO. TS-17





SCRIBE A CIRCLE WITH END OF CONDUIT ABOVE EACH CONDUIT ENTERING THE FOUNDATION.

(2) HOOPS WITHIN 5" OF TOP



DESIGN BASED ON INSTALLATION IN MINIMUM 3000 PSF SOIL WITH SINGLE LUMINAIRE ON 10 FOOT ARM. INSTALLATIONS NOT MEETING THESE PARAMETERS ARE SUBJECT TO ENGINEERING REVIEW.

#### NOTES:

1. FOUNDATIONS SHALL BE INSTALLED IN 24" AUGERED HOLE IN UNDISTURBED MATERIAL. WHERE PRE-CAST BASES ARE USED, THE INSTALLATION SHALL BE REVIEWED AND APPROVED BY THE ENGINEER. ENTIRE HOLE SHALL BE BACKFILLED WITH CDF OR OTHER COMPACTIBLE MATERIAL APPROVED BY THE ENGINEER.
2. CALL FOR UTILITY LOCATION BEFORE DIGGING (1-800-424-5555)
3. ALL STEEL TO HAVE 3" MINIMUM CONCRETE COVER. HOOPS SHALL HAVE 135° HOOKS. ANCHOR BOLTS MAY BE SECURED TO HOOPS.
4. BOND CAGE TO GROUND LUG.

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DATE 2/4/03

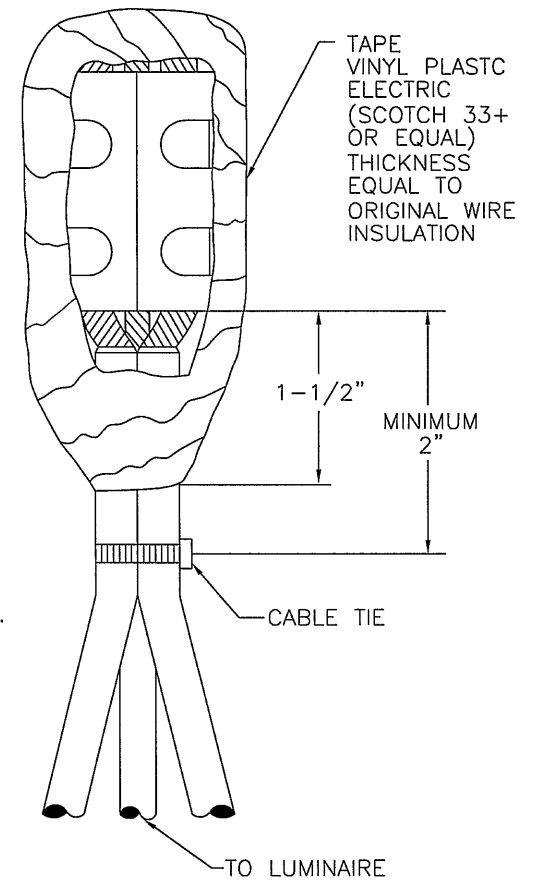
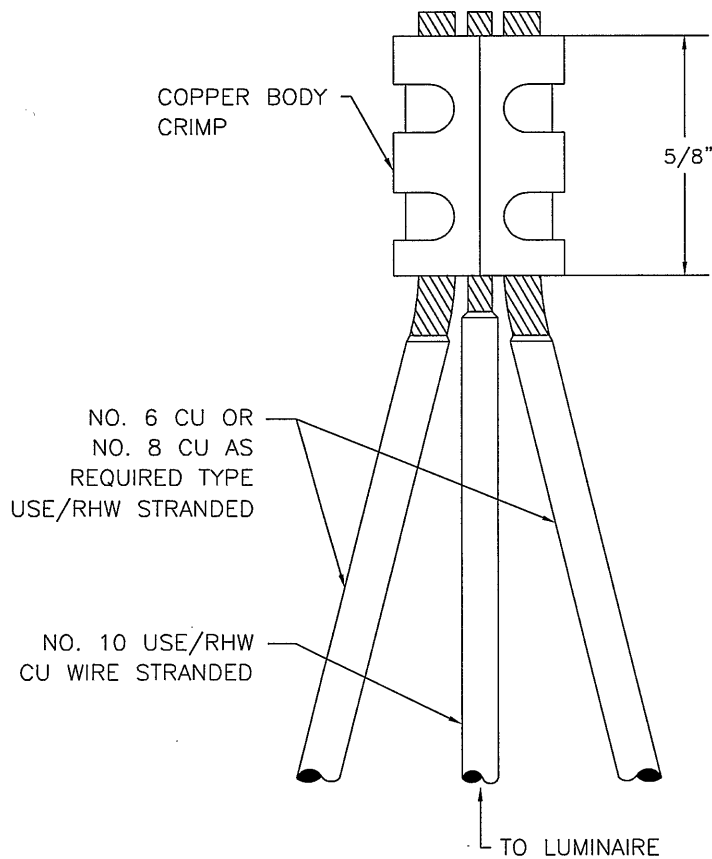
STREETLIGHT  
FOUNDATION  
30' & 40'

STANDARD PLAN NO. SL-02

**STREETLIGHTING TAP**  
FOR USE IN BASE OF STANDARDS

**TAPING INSTRUCTIONS**

1. MAKE SPLICE AS SHOWN IN FIGURE A
2. APPLY TAPE AS SHOWN IN FIGURE A  
APPLY TAPE AND "SCOTHKOTE" MOISTURE  
RESISTANT ELECTRICAL COATING OVER  
ENTIRE SPLICE AREA.
3. ATTACH CABLE TIE A MINIMUM OF 2" FROM  
THE PRESSURE CONNECTOR AS SHOWN IN FIGURE B.
4. APPLY SECOND COAT OF VARNISH.



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2/11/03  
DATE 2/4/03

**STREETLIGHT  
SPLICE FOR  
HANDHOLES**  
**STANDARD PLAN NO. SL-05**

WOOD POLES:

2" NUMBERS

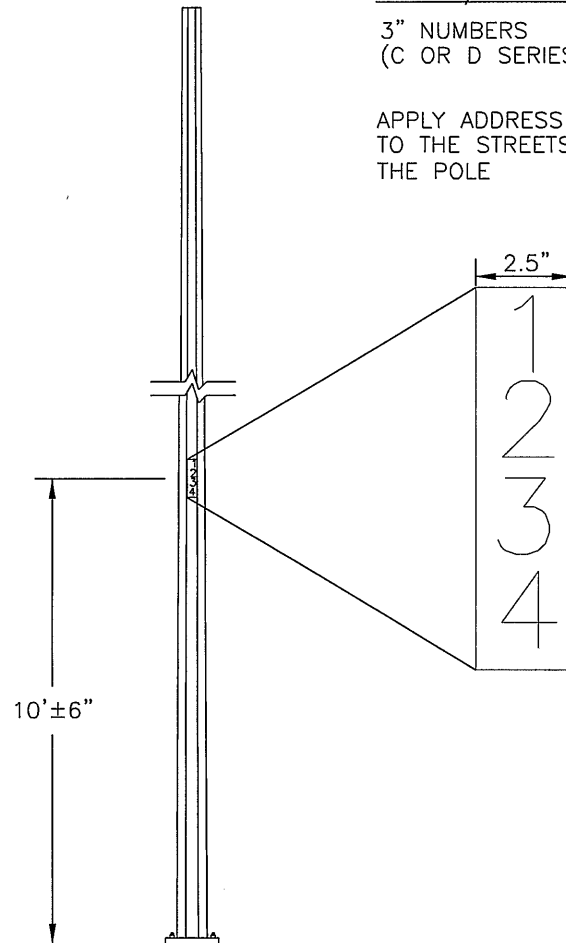
NAIL ON ALUMINUM NUMBERS

METAL/CONCRETE/FIBERGLASS POLES

3" NUMBERS

(C OR D SERIES)

APPLY ADDRESS NUMBERS  
TO THE STREETSIDE OF  
THE POLE



COLORS:

CONCRETE POLES:

BACKGROUND: LIGHT BEIGE  
FOREGROUND: DARK BROWN

UNPAINTED ALUMINUM  
OR GALVANIZED POLES:

BACKGROUND: NONE  
FOREGROUND: BLACK

IF THERE ARE EXISTING  
NUMBERS ON POLE  
PAINT OVER OR REMOVE OLD NUMBERS

CITY OF TACOMA  
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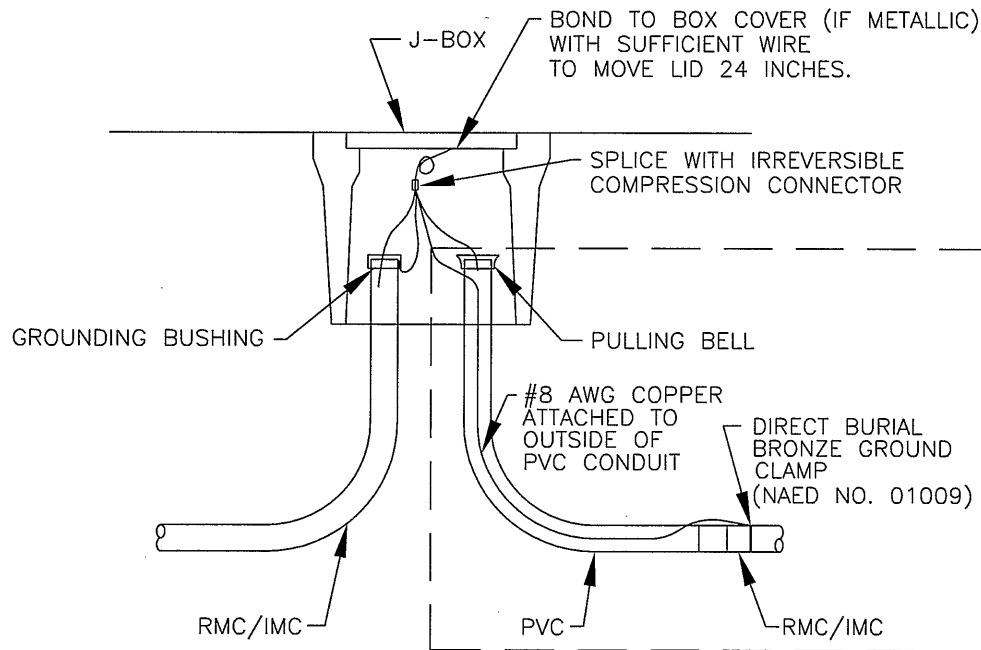
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DATE 2/4/03

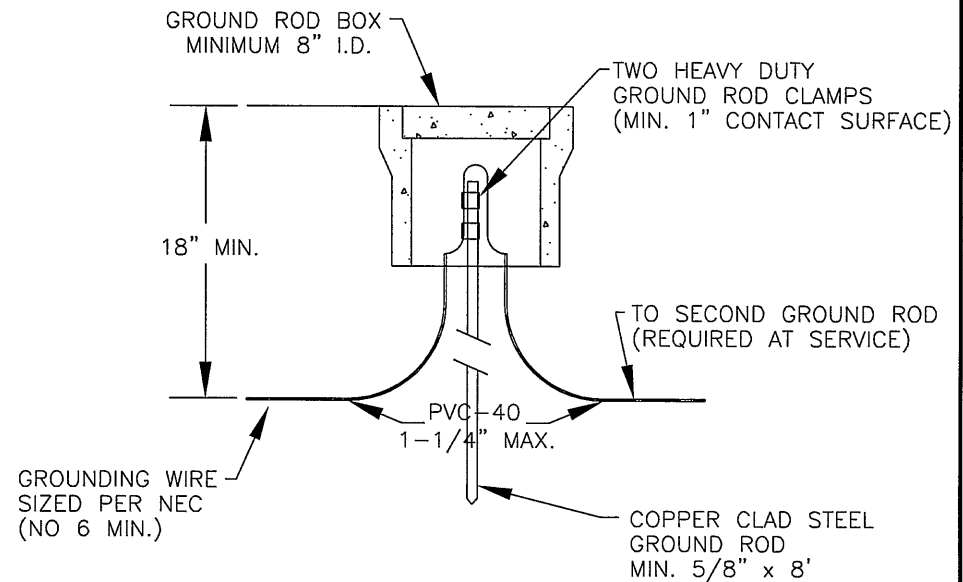
STREETLIGHT  
POLE ADDRESSES  
TYPICAL DETAIL

STANDARD PLAN NO. SL-06



**CONDUIT GROUNDING**

USE WHERE STEEL CONDUIT DOES NOT EXTEND TO JUNCTION BOX OR OTHER TERMINATION POINT.



**GROUND ROD INSTALLATION**

**NOTES:**

1. ALL STREETLIGHT CONDUITS SHALL INCLUDE AN EQUIPMENT GROUNDING CONDUCTOR.
2. METALLIC CONDUIT SHALL BE BONDED AT BOTH ENDS TO THE EQUIPMENT GROUNDING CONDUCTOR.
3. EQUIPMENT GROUNDING CONDUCTORS SHALL BE STRANDED INSULATED COPPER.

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DATE 2/4/03

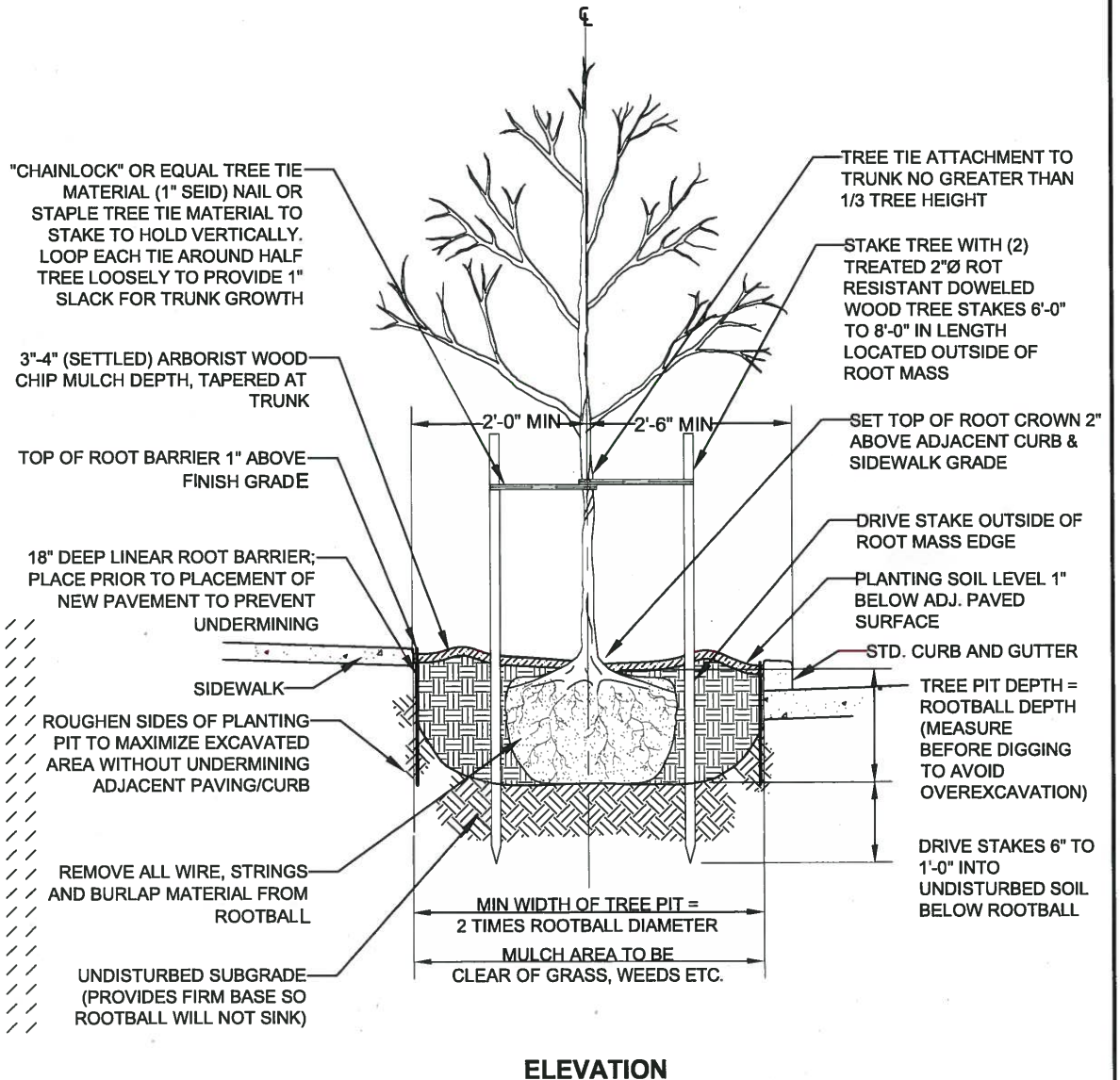
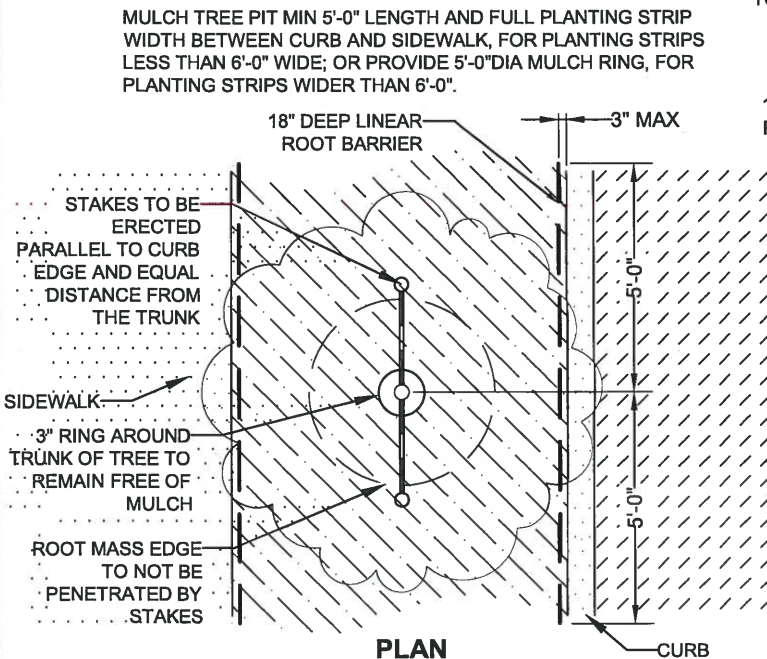
STREETLIGHT

GROUNDING DETAIL

STANDARD PLAN NO. SL-10

# **NOTES:**

1. Planting includes removal of stakes one year after installation.
2. Shape soil surface to provide 4' dia watering ring.
3. Tree clearance shall be per STD PLAN LS-02.
4. See STD PLAN LS-03 for tree well dimension detail.
5. Root barriers shall be an injection molded or extruded modular component made of high density polypropylene or polyethylene plastic. 18" depth x 10' length root barrier is required along edge of roadways, curbs, driveways, trails, sidewalks, or other structures where root ball is within 4 feet. install root barrier for newly planted trees only.



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STREET TREE PLANTING

STANDARD PLAN NO. LS-01

**NOTES:**

1. Street trees shall have a trunk free of branches up to the height listed below when planted:
  - A. Small trees, whose mature height is 15 to 25 feet, shall have a trunk free of branches up to a minimum of 4 feet.
  - B. Conifer/evergreen trees shall have a trunk free of branches up to a minimum of 2 feet.
  - C. Trees with ascending branches (examples - Ulmus Americana and Zelkova Serrata) may be branched 1 foot or More below the standard height and still provide proper clearance when planted.
  - D. All other trees shall have a trunk free of branches up to a minimum of 6 feet.
2. Street trees shall not be less than 1.5 inches in caliper for broadleaf trees or 6 feet in height for evergreen/conifers.
3. For minimum unpaved planting area dimensions refer to tree well dimension detail, STANDARD PLAN NO. LS-03.
4. The accessible portion of the sidewalk must be a minimum of 5 feet and be free of obstructions.

**MINIMUM TREE SETBACKS (AT PLANTING):**

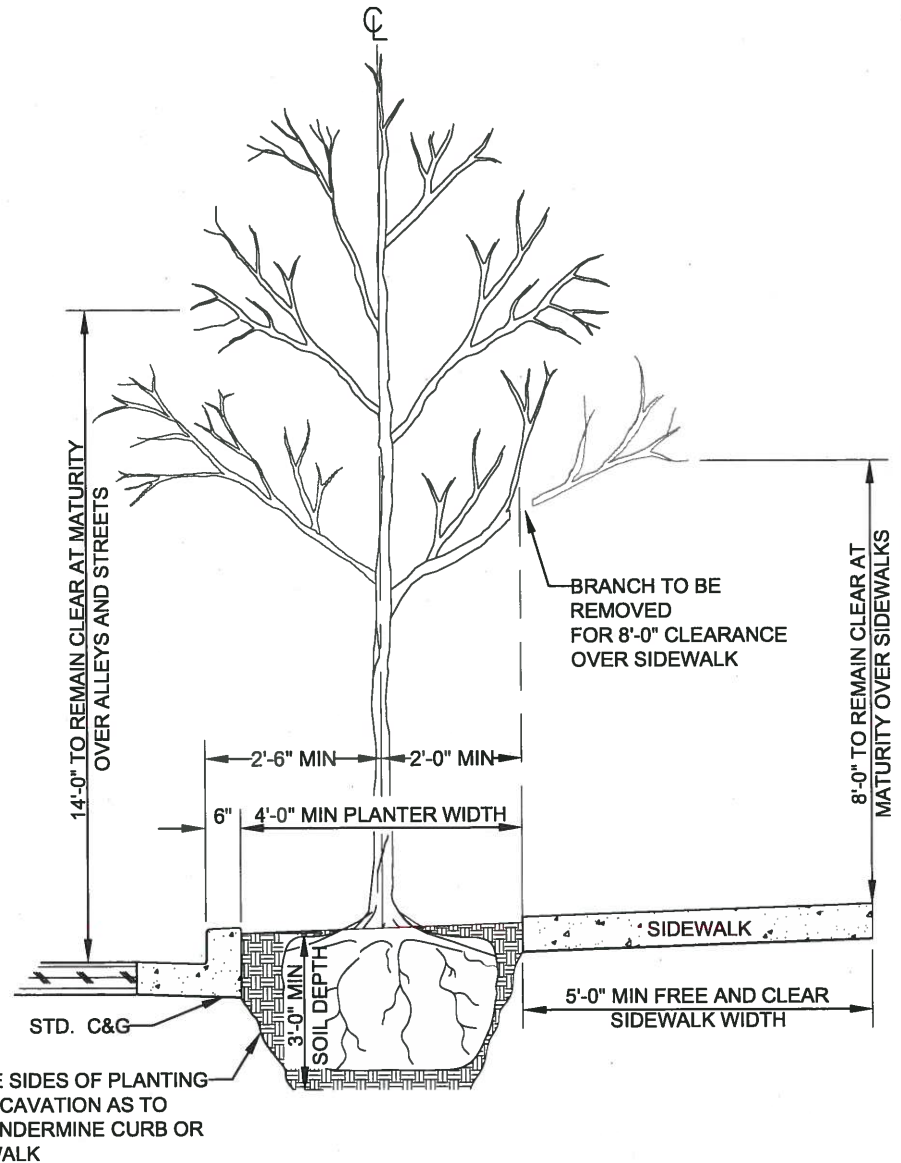
Centerline of tree to centerline of:	
Street corner (extension of outside face of curb)	25'-0"
Stop or yield sign	25'-0"
Utility pole	15'-0"
Other traffic control sign	5'-0"

Centerline of tree to edge of:	
Driveway	5'-0"
Face of curb	2'-6"
Pavement	2'-0"

Edge of tree to edge of:	
Utility worker access lids	5'-0"
Gas shutoff valves	5'-0"
Fire hydrant & hydrant branch	10'-0"
Water meter, water service & water mains	5'-0"
Storm inlet, cb, & manhole	5'-0"
Storm/sanitary service connections & mains	5'-0"

**MINIMUM TREE CLEARANCES (AT MATURITY):**

Lowest branch to surface of:	
Streets	14'-0"
Sidewalks	8'-0"



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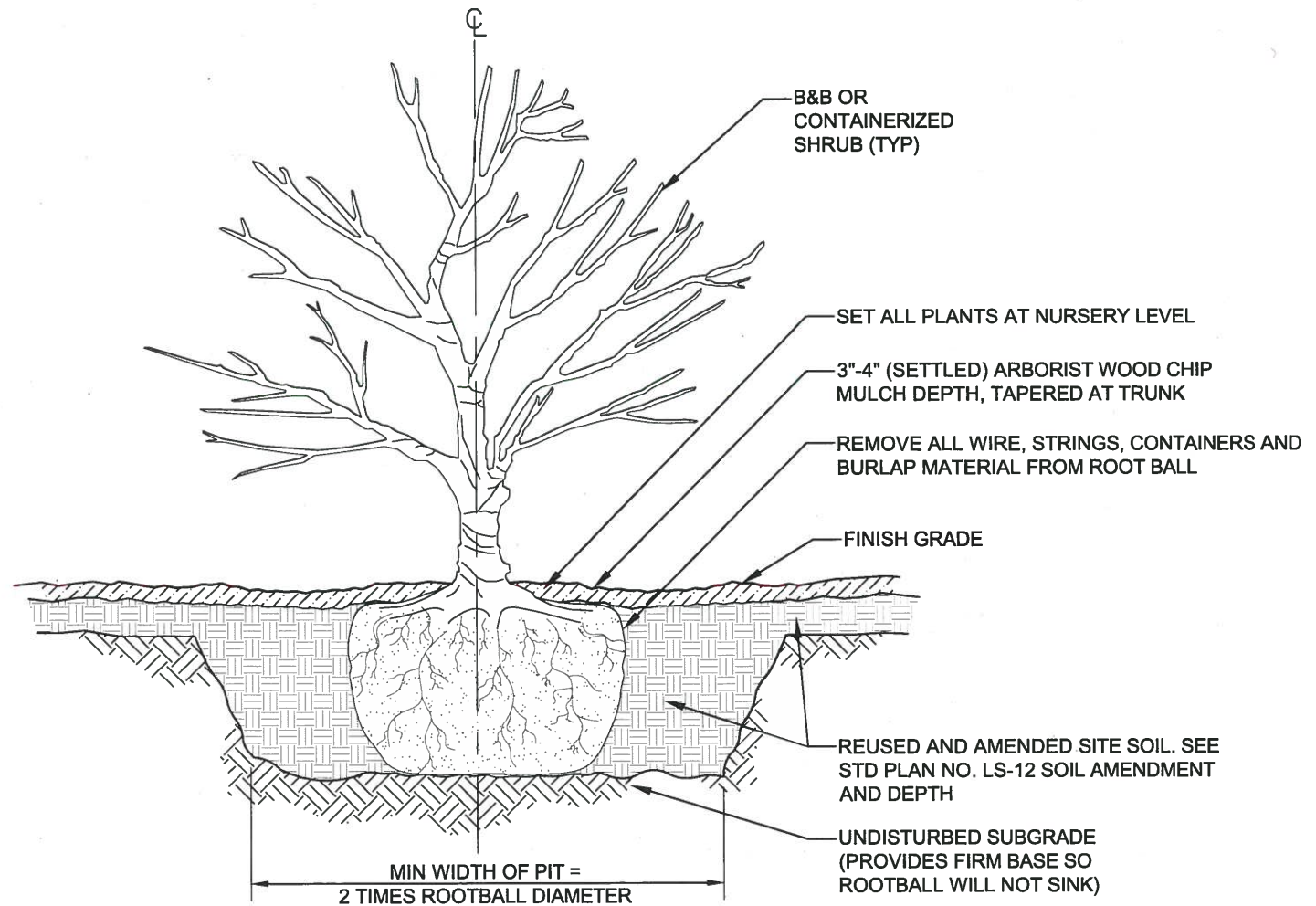
STREET TREE CLEARANCE

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*7/2/15*  
DATE

STANDARD PLAN NO. LS-02



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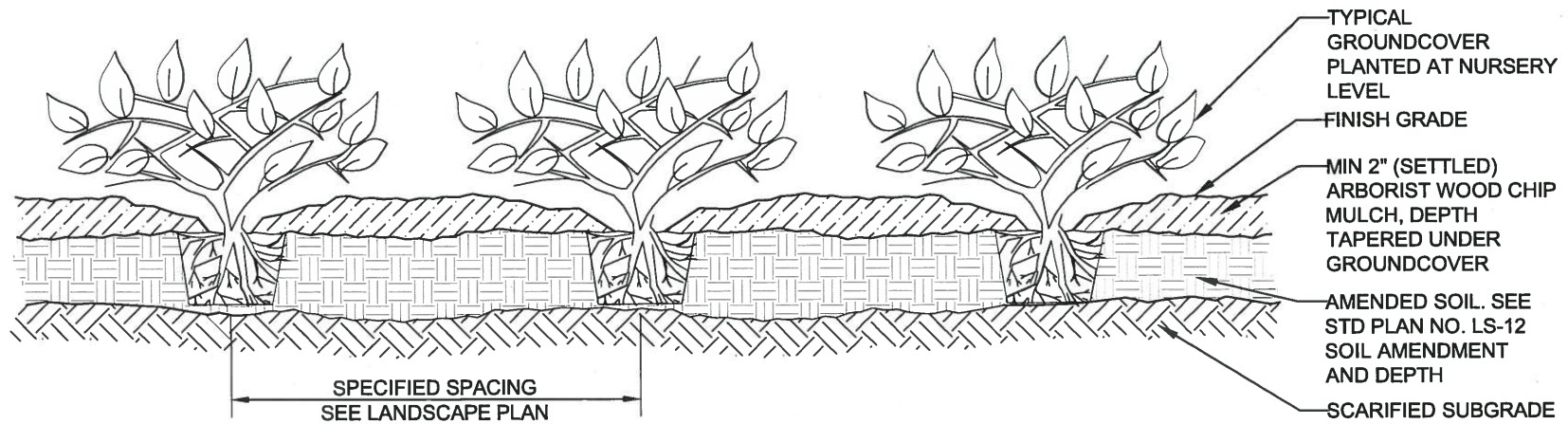
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*5/6/15*  
DATE

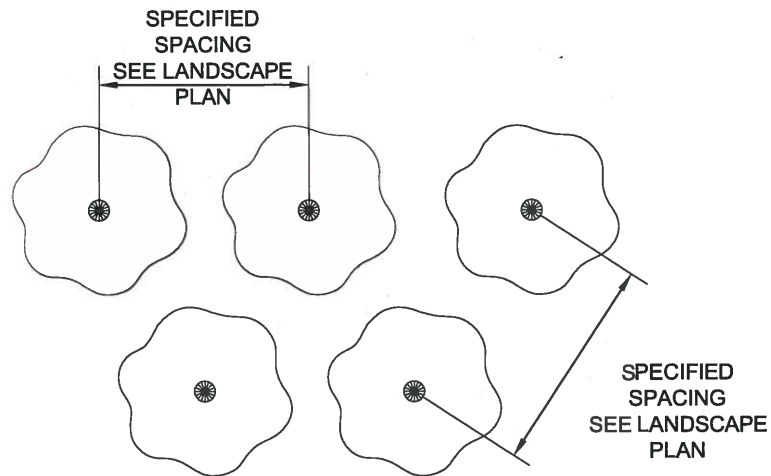
SHRUB PLANTING

STANDARD PLAN NO. LS-05





**ELEVATION**



**PLAN**

PLANT SPACING (INCHES)	PLANTS NEEDED TO FILL 100 SF
6	460
8	260
10	167
12	115
18	51
24	29
30	19
36	13
48	7

**TYPICAL PLANT QUANTITY NEEDED TO FILL 100 SF**

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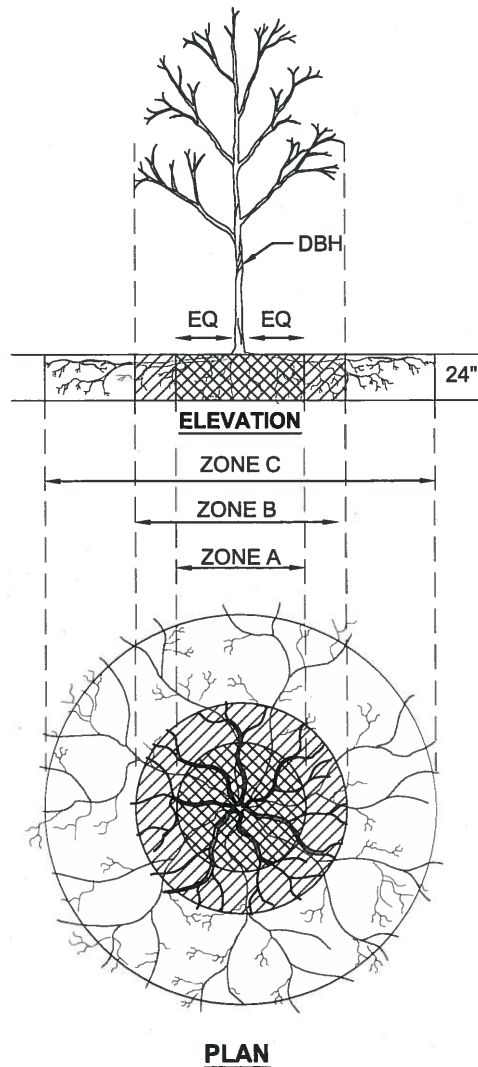
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CITY ENGINEER

*7/6/16*  
DATE

GROUNDCOVER PLANTING

STANDARD PLAN NO. LS-06





### 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

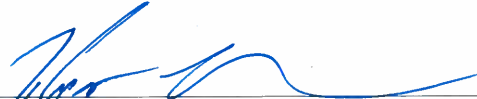
1. Operation of heavy equipment and/or stockpiling of materials subject to approval. \*Surface protection measures required
2. Trenching permitted as follows:
  - Excavation by hand or with a hand-driven trencher may be required
  - Minimize trench width to the extent possible
  - No disturbance permitted 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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DATE

TREE PROTECTION  
DURING CONSTRUCTION

STANDARD PLAN NO. LS-08

### TREE PROTECTION ZONE (TPZ)

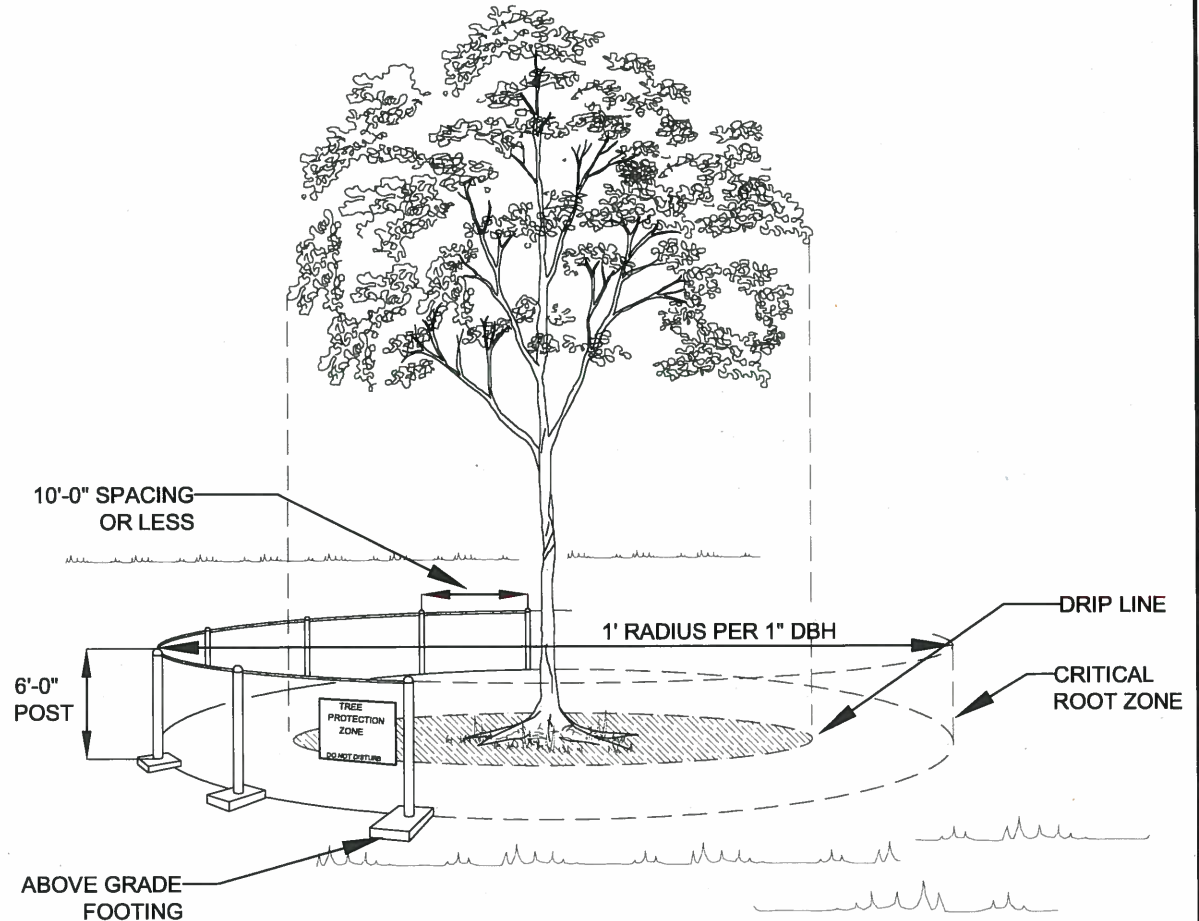
The Tree Protection Zone is an arborist defined area surrounding the trunk intended to protect the roots and soil to ensure future tree health and safety.

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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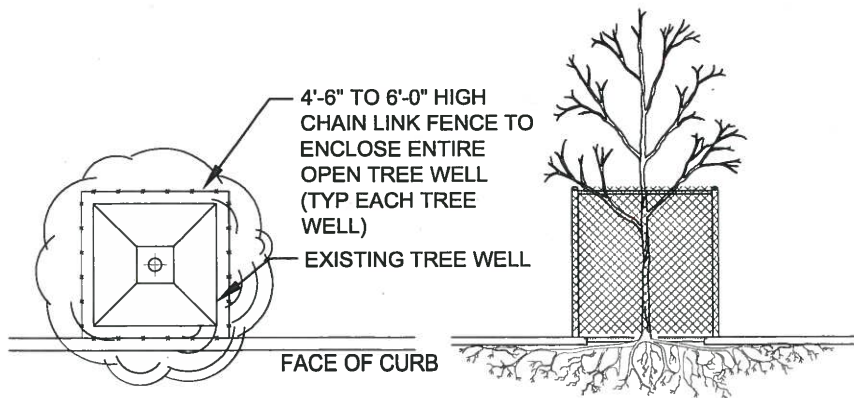
*7/4/15*  
DATE

TREE PROTECTION  
DURING CONSTRUCTION

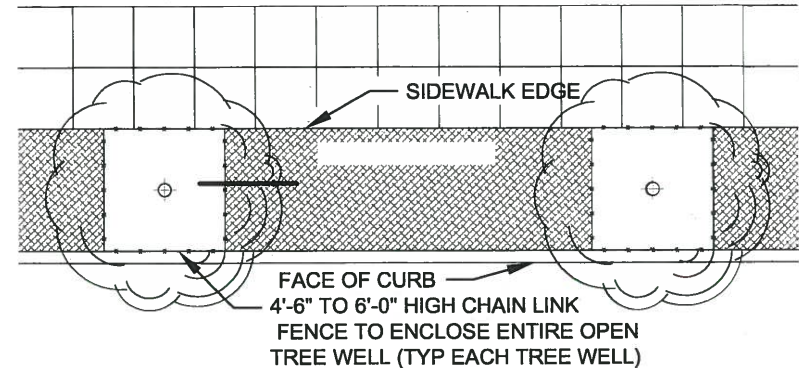
STANDARD PLAN NO. LS-09

**NOTES:**

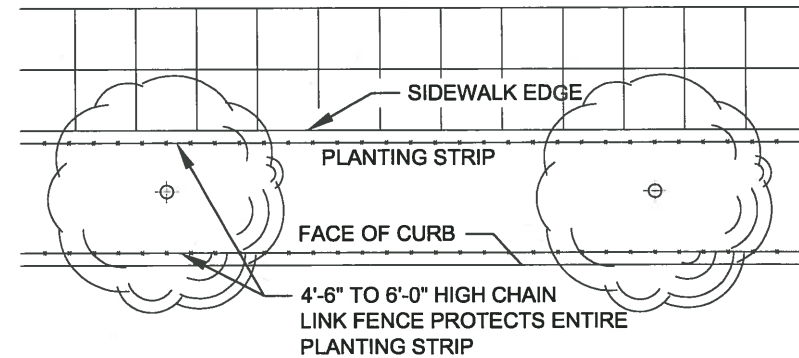
1. Tree protection requirements included in this standard detail are for trees which are directly adjacent to paved surfaces which will be retained through construction.
2. Required protection measures for trees other than those in tree wells and planting strips are contained in the TYPICAL TREE PROTECTION 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 TREE WELL**




**TREE IN PLANTING STRIP-OPTION 1**




**TREE IN PLANTING STRIP-OPTION 2**

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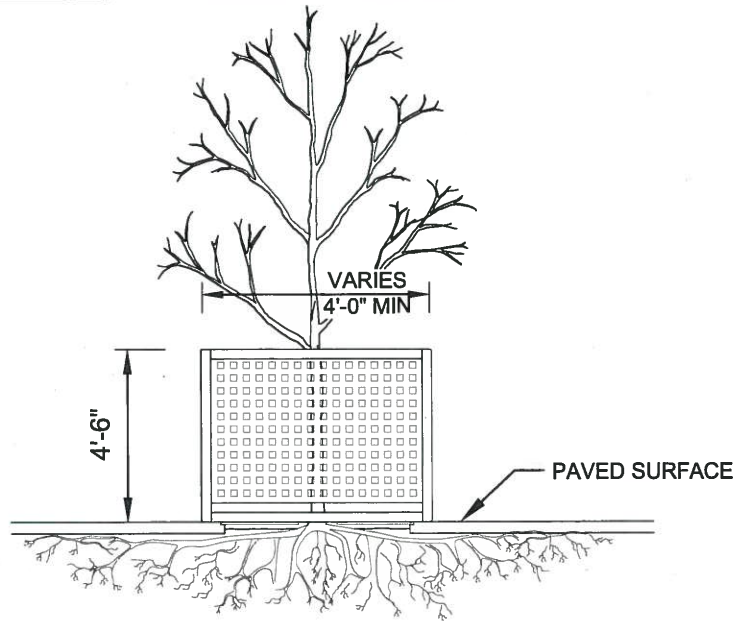
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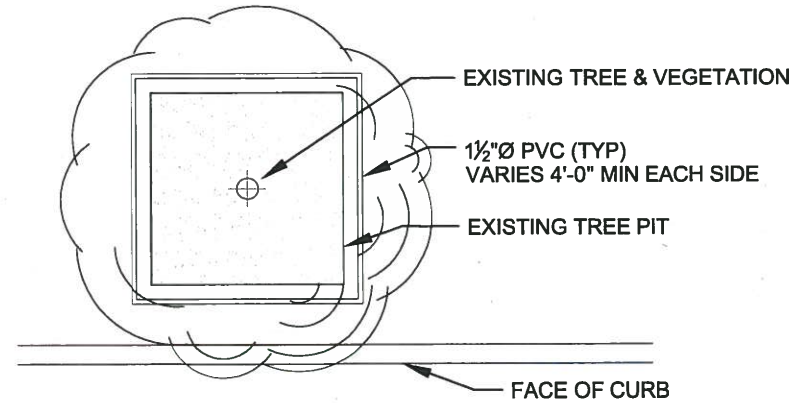
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DATE

TREE PROTECTION FENCING  
FOR TREES IN PAVED AREAS

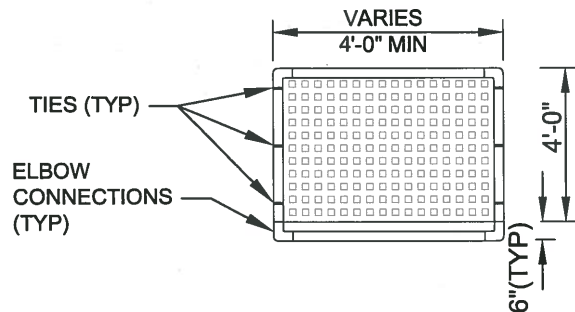
STANDARD PLAN NO. LS-10



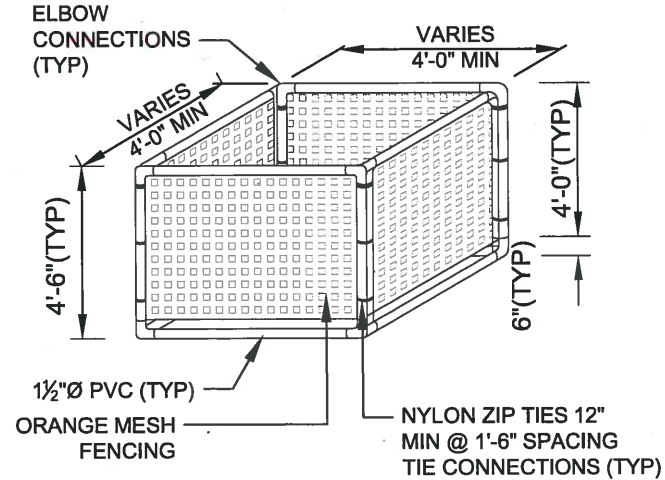
**TYPICAL TREE GUARD RAIL**



**PLAN VIEW**



**TYPICAL PANEL**



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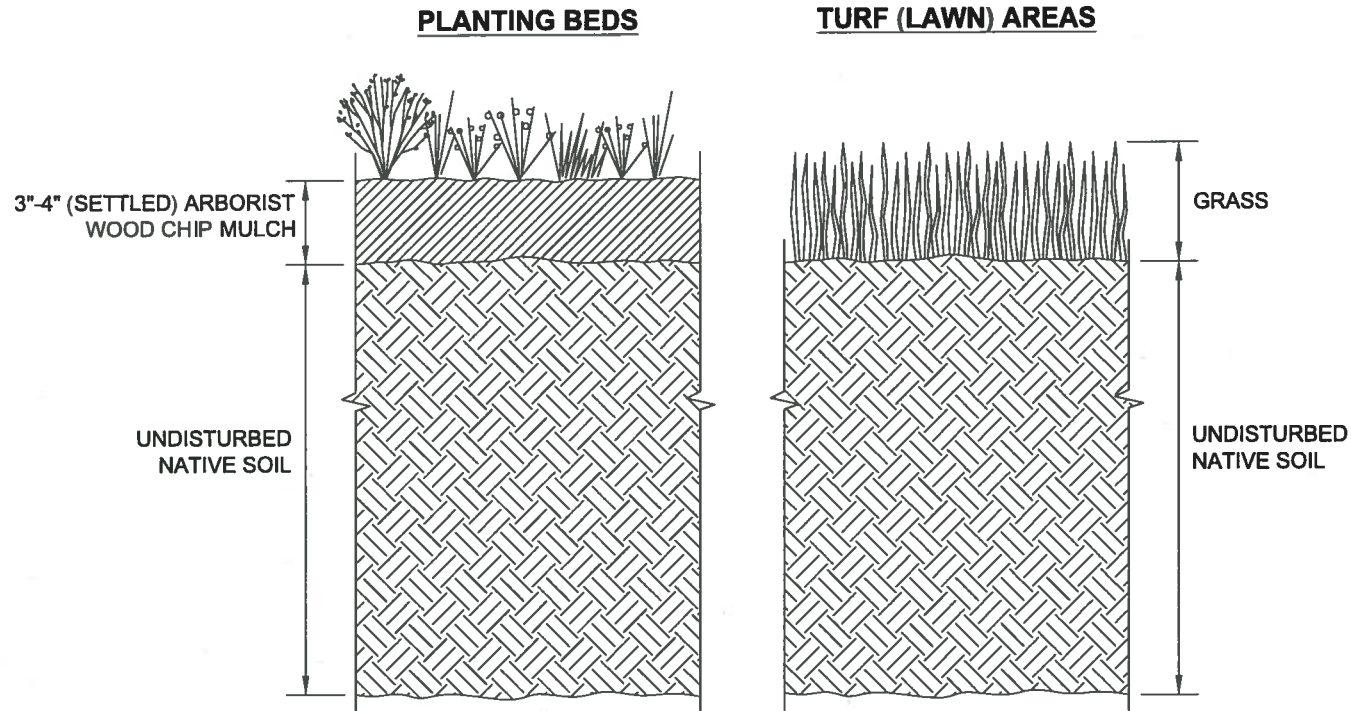
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DATE

REUSABLE TREE PROTECTION  
FENCING FOR PAVED AREAS

STANDARD PLAN NO. LS-11





OPTION 1: Leave native vegetation and soil undisturbed, and protect from compaction during construction. Identify areas of the site that will not be stripped, logged, graded or driven on, and fence off those areas to prevent impacts during construction. If neither soils nor vegetation are disturbed, these areas do not require amendment.

See SWMM BMP L613 for additional information.

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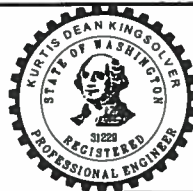
TACOMA POWER

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ENVIRONMENTAL  
SERVICES

NA

TACOMA WATER



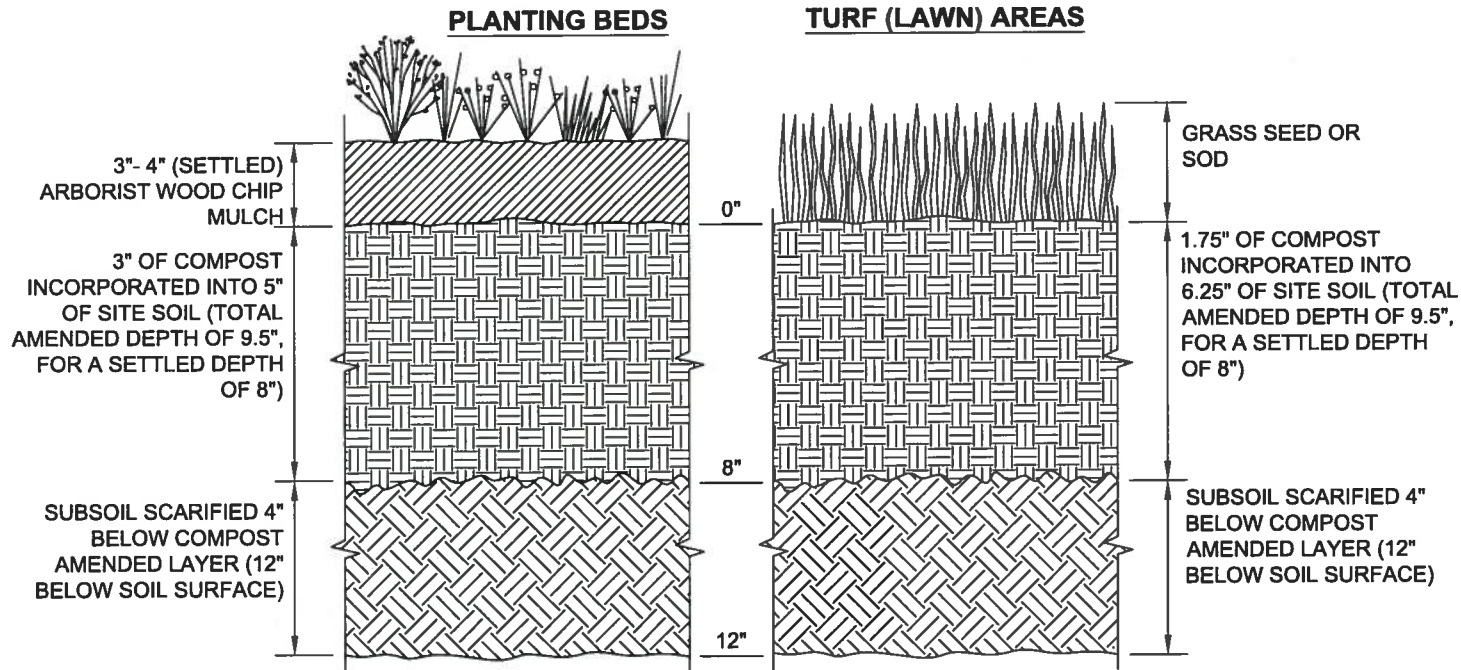
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DATE

CITY OF TACOMA  
BMP L613 POST-CONSTRUCTION  
SOIL QUALITY AND DEPTH  
OPTION 1 - NO DISTURBANCE

STANDARD PLAN NO. GSI-01a



**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.

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SERVICES

NA  
TACOMA POWER

NA  
TACOMA WATER



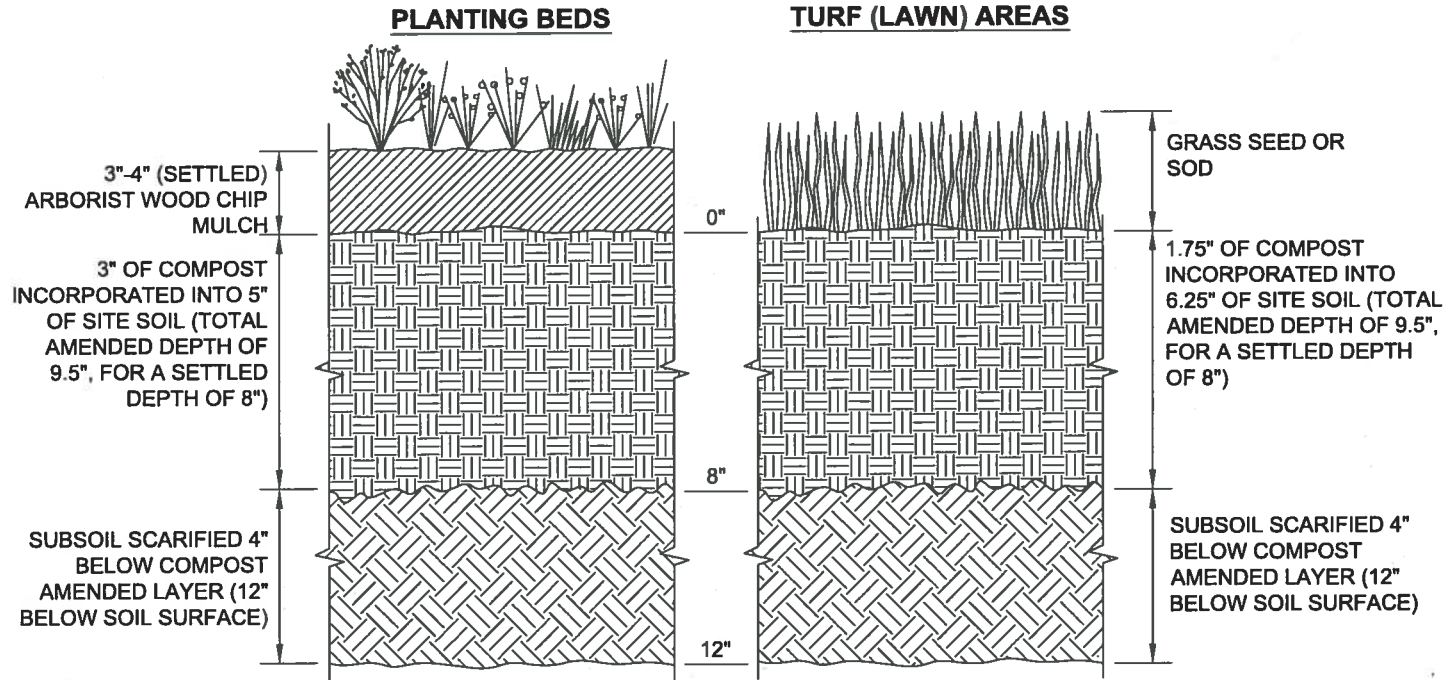
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DATE

CITY OF TACOMA  
BMP L613 POST CONSTRUCTION SOIL  
QUALITY AND DEPTH  
OPTION 2 - AMEND IN PLACE

STANDARD PLAN NO. GSI-01b



**OPTION 3:** Stockpile existing topsoil during grading. Stockpile and cover soil with weed barrier material that sheds moisture yet allows air transmission, in approved location, prior to grading. Replace stockpiled topsoil prior to planting. Stockpiled topsoil shall be tested and amended if needed to meet the organic matter or depth requirements either at preapproved rate or calculated rate. All soil areas disturbed or compacted during construction, and not covered by buildings or pavement, shall be amended with compost as described below.

**Scarification:** If placed topsoil plus compost or other organic material will amount to less than 12 inches, scarify or till subgrade to depth needed to achieve 12 inches of loosened soil after topsoil and amendment are placed. Entire surface should be disturbed by scarification. Do not scarify within drip line of existing trees to be retained.

A. Planting Beds	B. Turf (Lawn) Areas
1. <b>PREAPPROVED RATE:</b> Place 3 inches of composted material and rototill into 5 inches of replaced soil (a total amended depth of about 9.5 inches, for a settled depth of 8 inches).	1. <b>PREAPPROVED RATE:</b> Place 1.75 inches of composted material and rototill into 6.25 inches of replaced soil (a total amended depth of about 9.5 inches, for a settled depth of 8 inches).
2. <b>CALCULATED RATE:</b> Place calculated amount of composted material or approved organic material and rototill into depth of replaced soil needed to achieve 8 inches of settled soil at 10% organic content.	2. <b>CALCULATED RATE:</b> Place calculated amount of composted material or approved organic material and rototill into depth of replaced soil needed to achieve 8 inches of settled soil at 5% 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.	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. Plans LS-08 and LS-09.

See SWMM BMP L613 for more information.

DCS

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TACOMA POWER

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NA

TACOMA WATER



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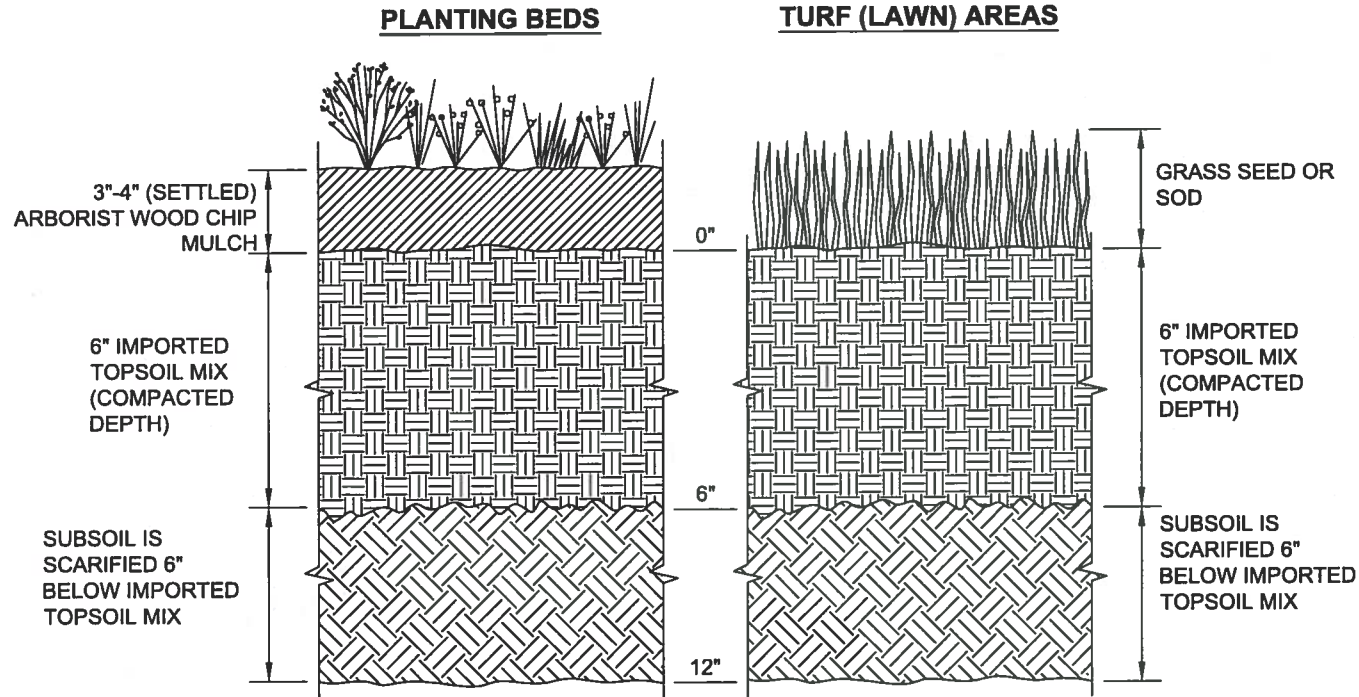
**CITY OF TACOMA**

**BMP L613 POST CONSTRUCTION SOIL QUALITY AND DEPTH**

**OPTION 3 - STOCKPILE AND AMEND**

**STANDARD PLAN NO. GSI-01c**





**OPTION 4:** Import topsoil mix of sufficient organic content and depth to meet the requirements. All soil areas disturbed or compacted during construction, and not covered by buildings or pavement, shall be restored as described below.

Scarification: scarify or till subgrade in two direction to 6 inches depth. Entire surface shall be disturbed by scarification. Do not scarify within drip line of existing trees to be retained.

**A. Planting Beds**

Use imported topsoil mix containing 10% organic matter (typically around 40% compost). Soil portion must be sand or sandy loam as defined by the USDA. Place 3 inches of imported topsoil mix on surface and till into 2 inches of soil. Place 3 inches of imported topsoil mix on surface and till into 2 inches of soil. Place second lift of 3 inches topsoil mix on surface.

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**

Use imported topsoil mix containing 5% organic matter (typically around 25% compost). Soil portion must be sand or sandy loam as defined by the USDA. Place 3 inches of imported topsoil mix on surface and till into 2 inches of soil. Place second lift of 3 inches topsoil mix on surface.

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 tree protection zone. See Std. Plans LS-08 and LS-09.

See SWMM BMP L613 for additional information.

**REVIEWED BY**

*DCS* PUBLIC WORKS  
*NA* TACOMA POWER

*GMS* ENVIRONMENTAL SERVICES  
*NA* TACOMA WATER

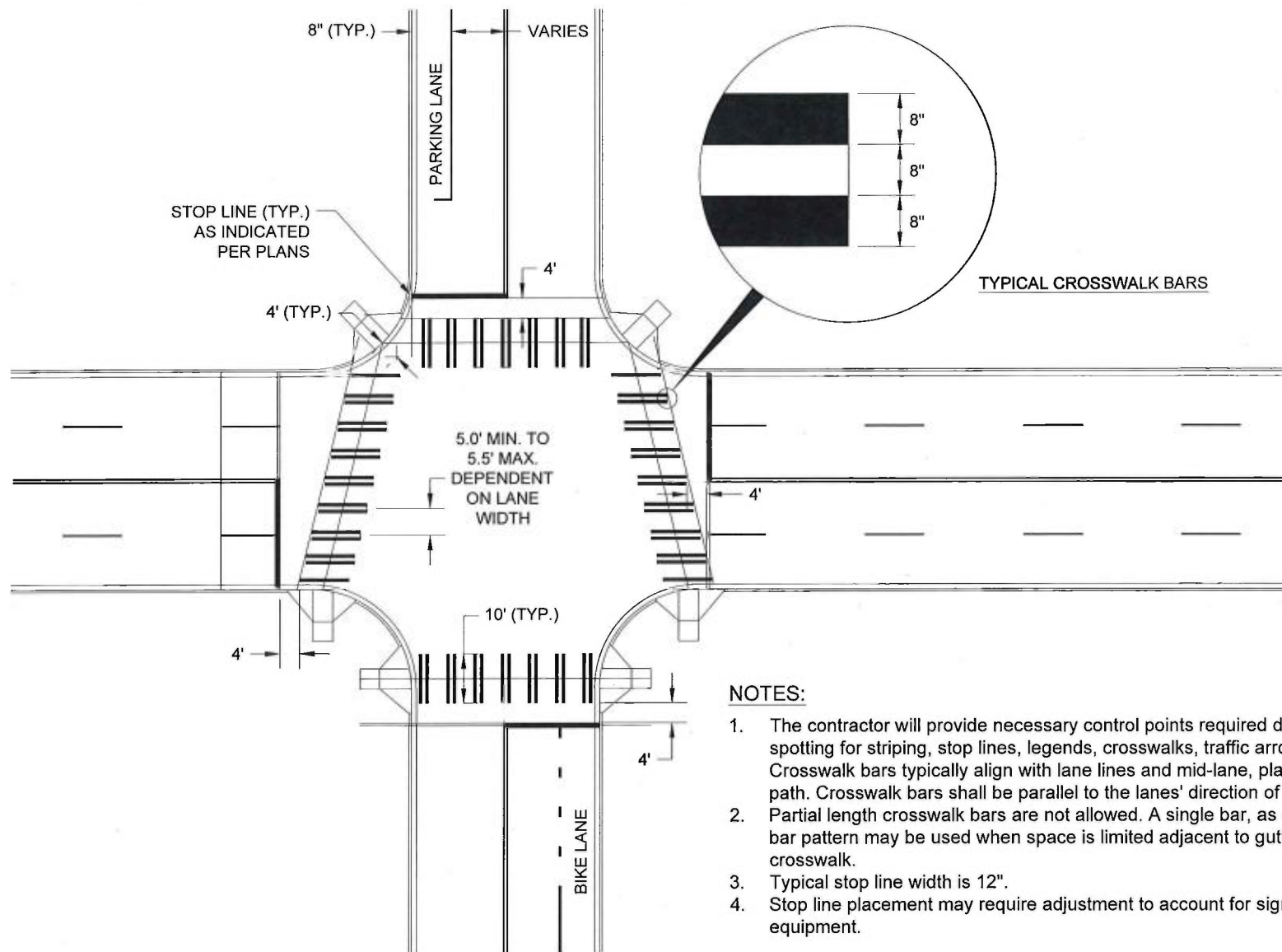


**APPROVED FOR PUBLICATION**

*[Signature]* CITY ENGINEER  
*4/21/16* DATE

**CITY OF TACOMA**  
**BMP L613 POST CONSTRUCTION SOIL**  
**QUALITY AND DEPTH**  
**OPTION 4 - IMPORTED TOPSOIL**  
**STANDARD PLAN NO. GSI-01d**





NOTES:

1. The contractor will provide necessary control points required during preliminary spotting for striping, stop lines, legends, crosswalks, traffic arrows, and signs. Crosswalk bars typically align with lane lines and mid-lane, placed to avoid wheel path. Crosswalk bars shall be parallel to the lanes' direction of travel.
2. Partial length crosswalk bars are not allowed. A single bar, as opposed to the double bar pattern may be used when space is limited adjacent to gutter, curb or intersecting crosswalk.
3. Typical stop line width is 12\".
4. Stop line placement may require adjustment to account for signal detection equipment.

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GMS

ENVIRONMENTAL  
SERVICES

NA

TACOMA WATER



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*[Signature]* 8/16/16

CITY ENGINEER

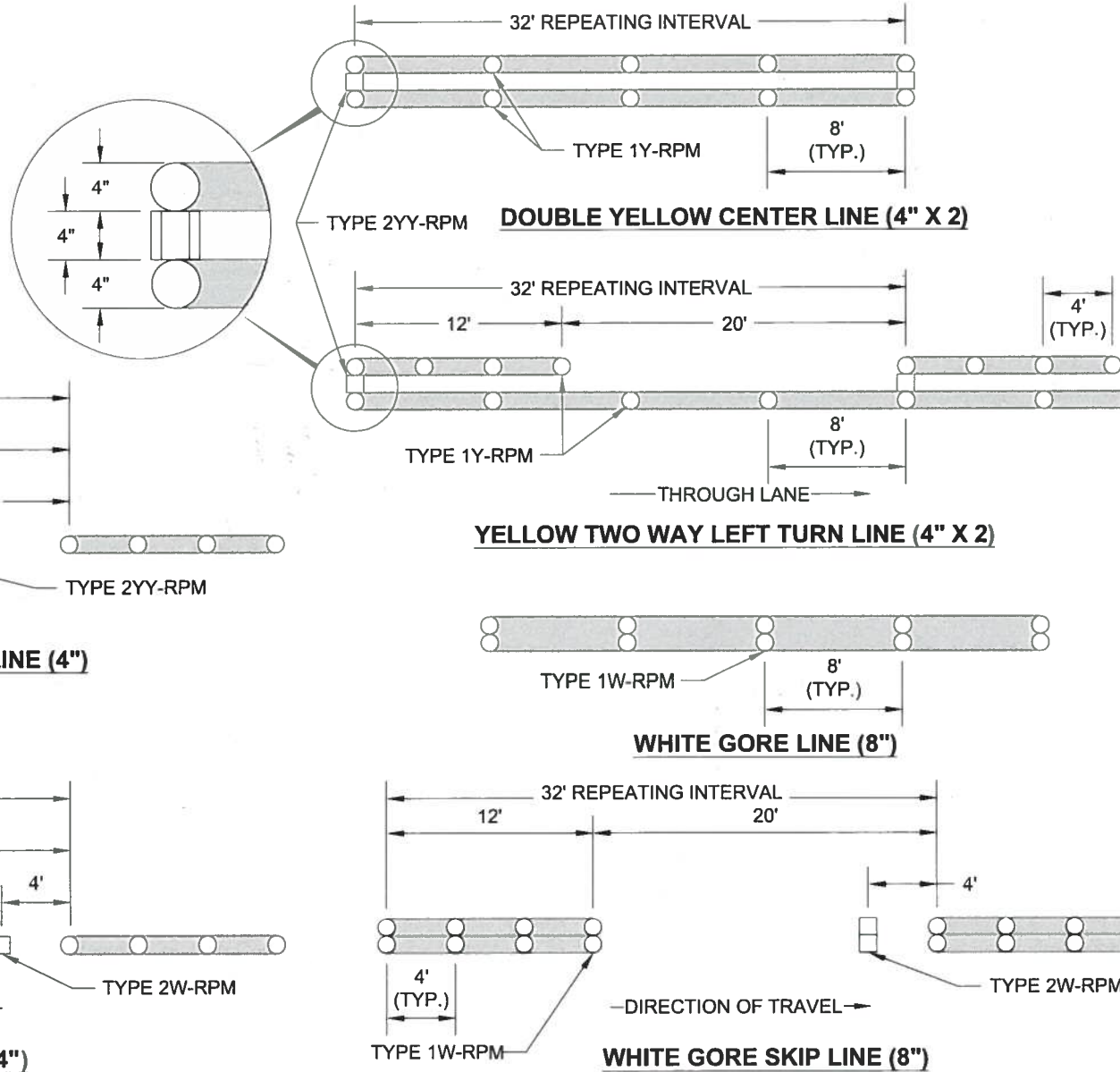
DATE

CITY OF TACOMA  
TYPICAL CROSSWALK AND  
STOP LINE LAYOUT FOR  
VARIOUS CURB RAMP COMBINATIONS

STANDARD PLAN NO. CH-02

**NOTES:**

1. The Contractor will provide necessary control points for striping, stop lines, legends, crosswalks, traffic arrows, and signs. City inspection required before striping or associated sign installation begins.
2. Use of RPMs as shown correspond with paint striping. If striping consists of thermoplastic (or similar) then Type 1Y/W-RPMs are omitted.
3. RPMs shall not be placed over longitudinal or transverse joints of the pavement surface.



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DATE

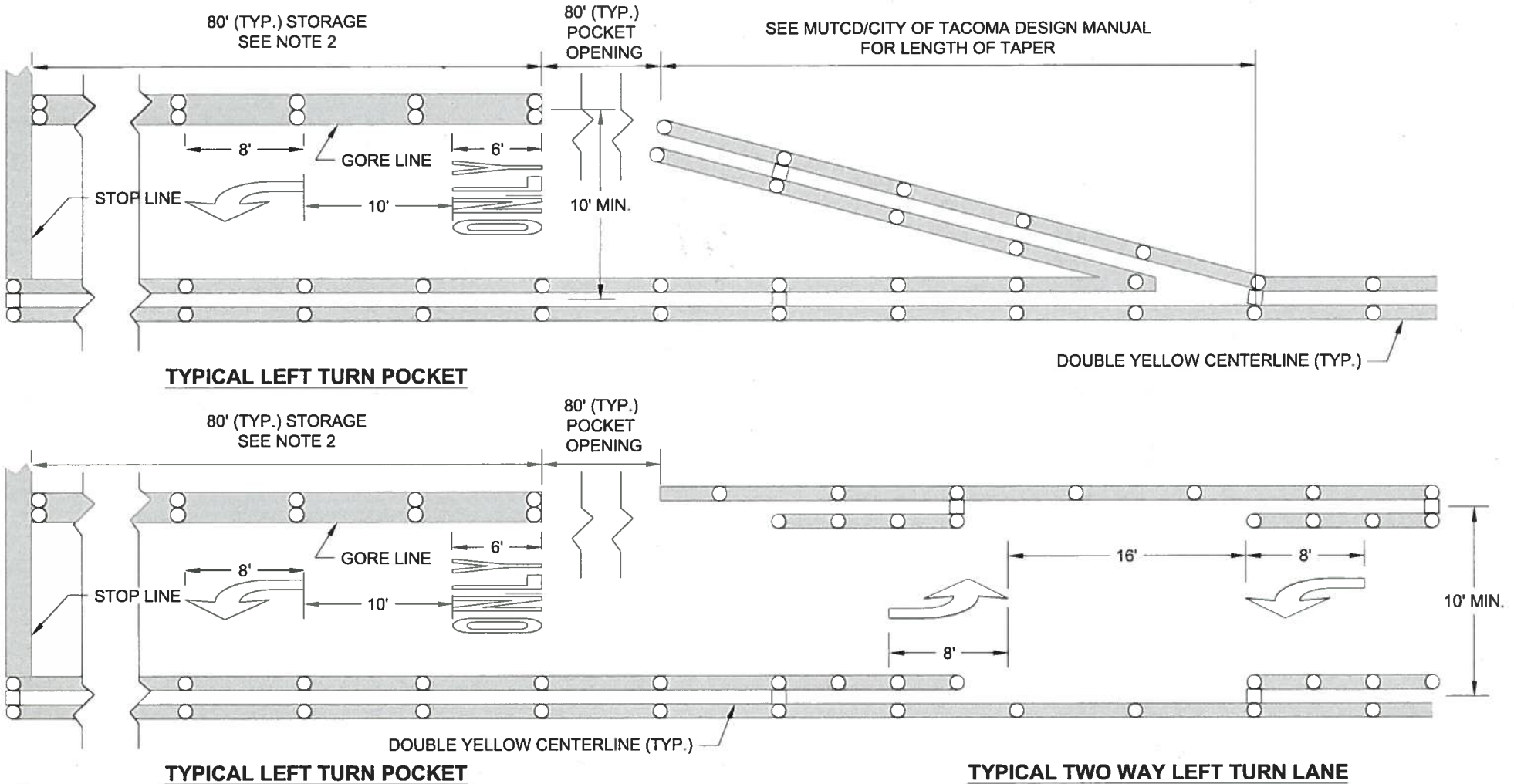
CITY OF TACOMA

LONGITUDINAL  
PAVEMENT MARKINGS

STANDARD PLAN NO. CH-03A

NOTES:

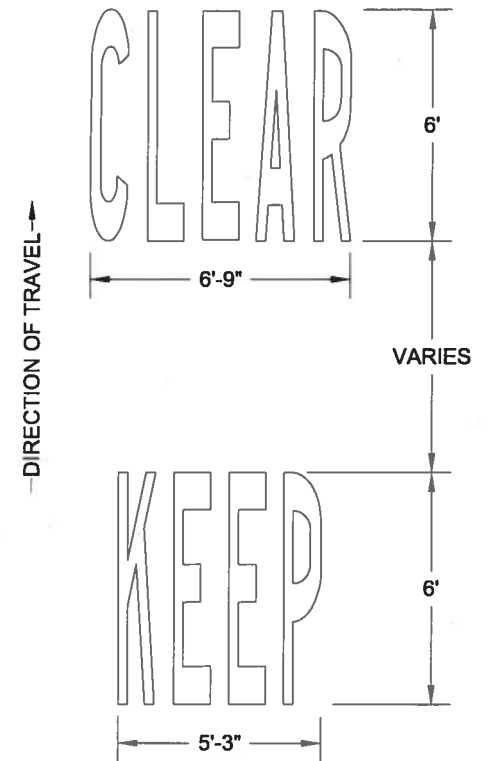
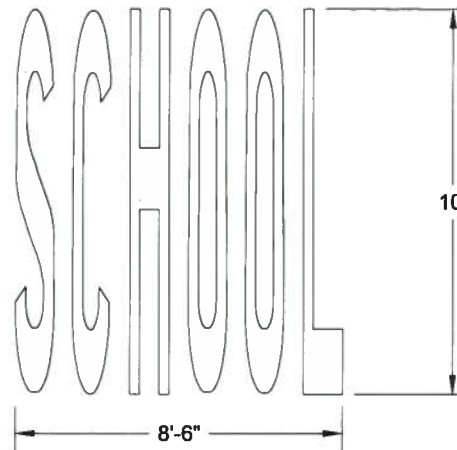
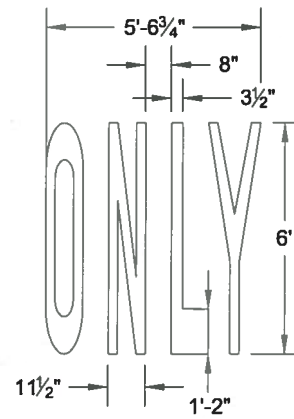
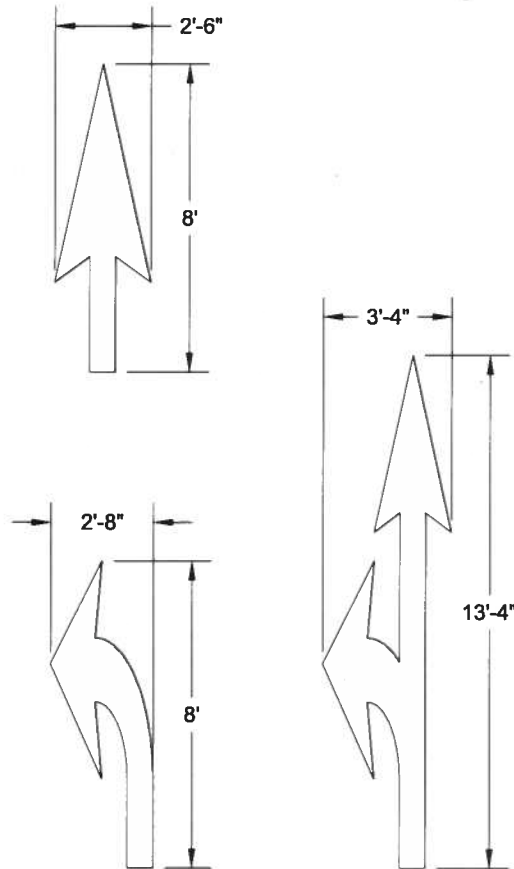
1. Contractor will provide necessary control points to assist in preliminary spotting for striping, stop line, legends, crosswalks, traffic arrows, and associated signs.
2. If storage length is 100 feet or greater, then a second arrow, (without "only"), to be placed at 22 feet from stop line to near edge of the arrow.
3. Use of RPMs as shown correspond with paint striping. If striping consists of thermoplastic (or similar) then type 1Y/W-RPMs are omitted.



CH-09

**NOTES:**

1. Contractor will provide necessary control points to assist in preliminary spotting for stripe, stop line, legends, crosswalks, traffic arrows, and associated signs.
2. Typical letter width is  $11\frac{1}{2}$ ".
3. Typical letter spacing is 8".
4. Letter stroke is  $3\frac{1}{2}$ ".
5. Refer to WSDOT M24.40-02 for more specific traffic arrow dimensions.
6. Arrows shown may be mirrored about their centerline as applicable to design.



DCS

PUBLIC WORKS

NA

TACOMA POWER

REVIEWED BY

ENVIRONMENTAL  
SERVICES

NA

TACOMA WATER



APPROVED FOR PUBLICATION

CITY ENGINEER

DATE

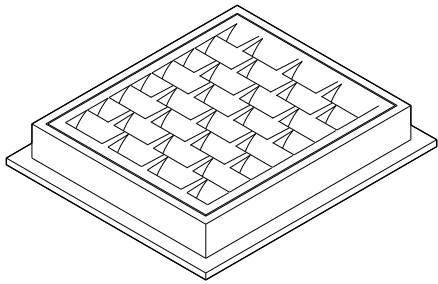
CITY OF TACOMA

PAVEMENT  
WORDS AND ARROWS

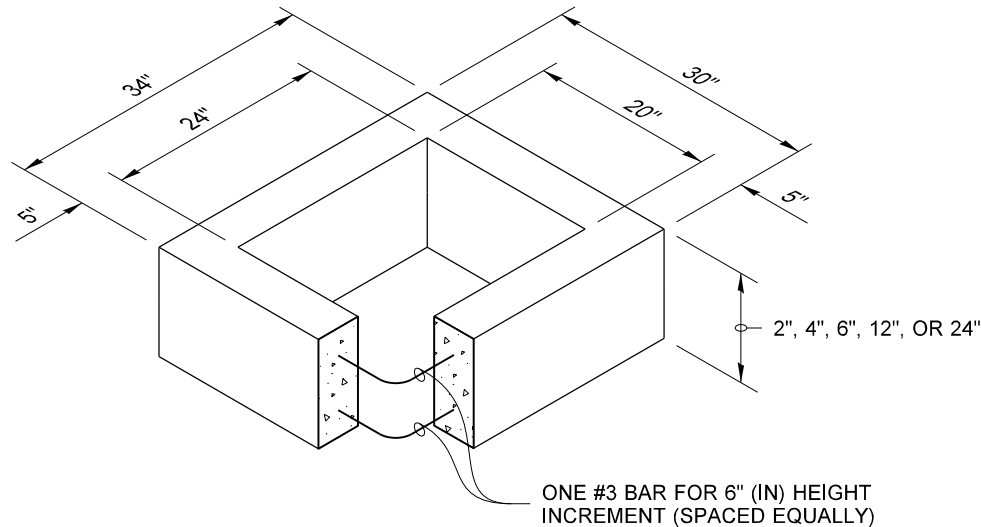
STANDARD PLAN NO.

CH-10

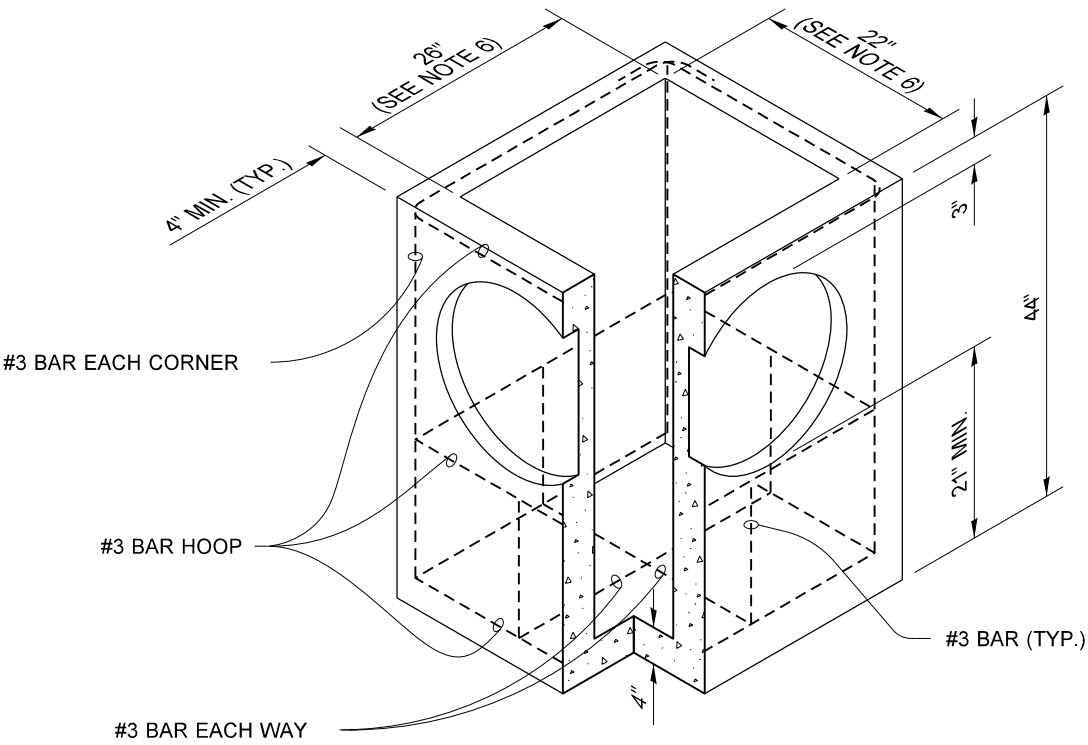
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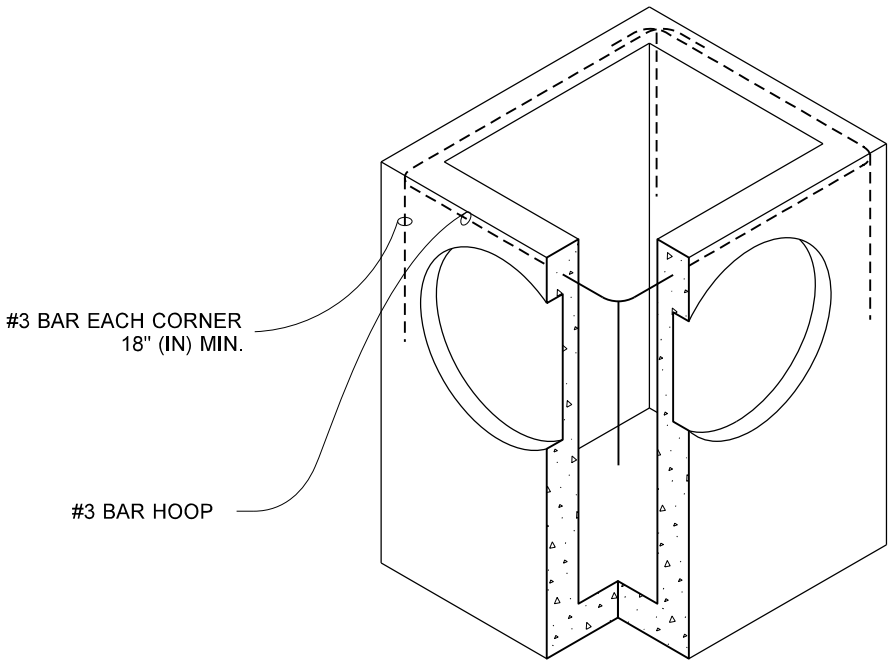
FRAME AND VANED GRATE



RECTANGULAR ADJUSTMENT SECTION



PRECAST BASE SECTION



ALTERNATIVE PRECAST BASE SECTION

PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER (INCHES)
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP * (STD. SPEC. SECT. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. SECT. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. SECT. 9-05.12(2))	15"

\* CORRUGATED POLYETHYLENE STORM SEWER PIPE

NOTES

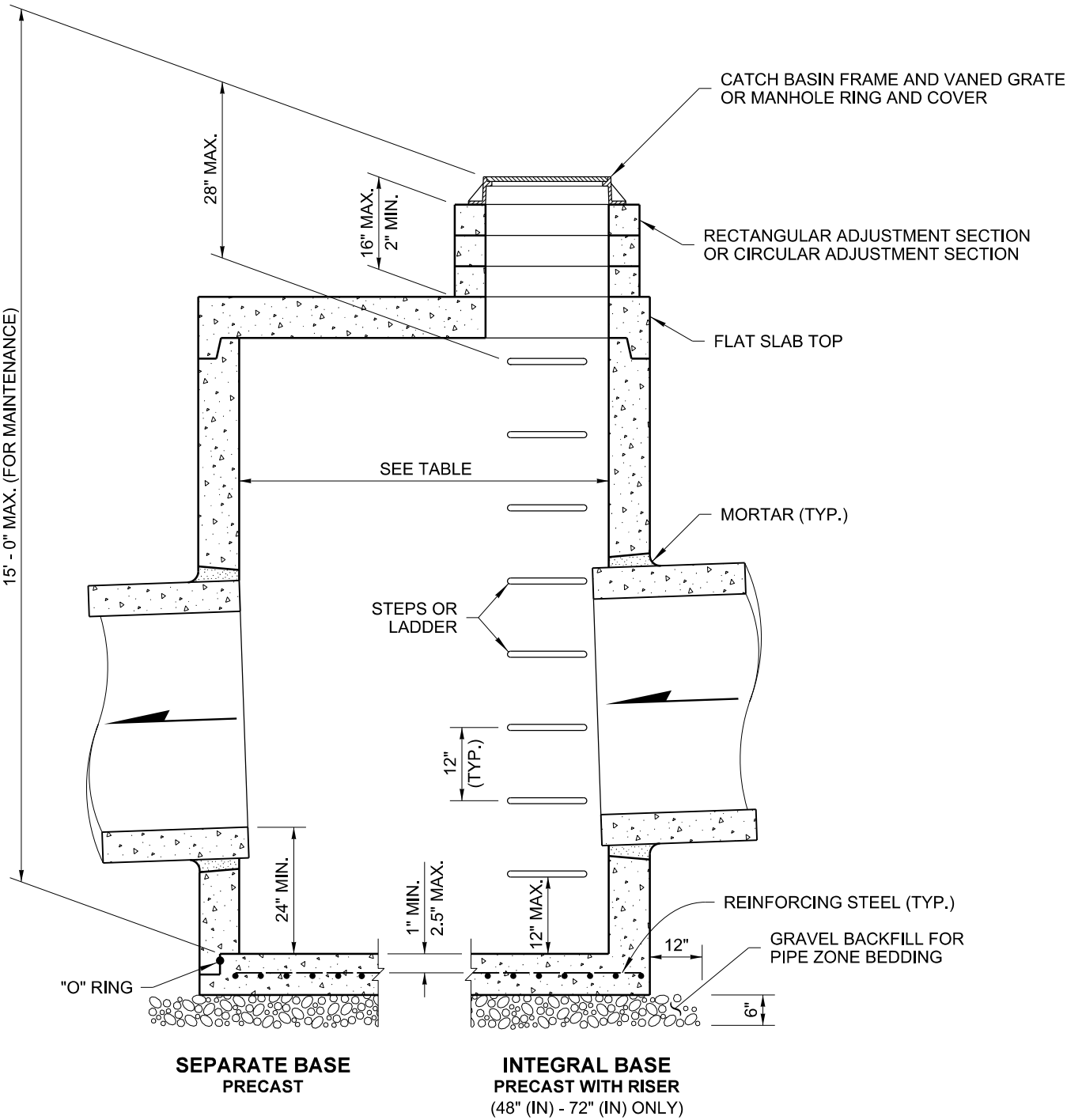
1. As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the **ALTERNATIVE PRECAST BASE SECTION**. Wire mesh shall not be placed in the knockouts.
2. The knockout diameter shall not be greater than 20" (in). Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.
3. The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
4. The frame and grate may be installed with the flange down, or integrally cast into the adjustment section with flange up.
5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
6. The opening shall be measured at the top of the **Precast Base Section**.
7. All pickup holes shall be grouted full after the basin has been placed.



**CATCH BASIN TYPE 1**  
**STANDARD PLAN B-5.20-02**

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION



NOTES

1. No steps are required when height is 4' or less.
2. The bottom of the precast catch basin may be sloped to facilitate cleaning.
3. The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
4. Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.

CATCH BASIN DIMENSIONS				
CATCH BASIN DIAMETER	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"
120"	10"	12"	96"	12"
144"	12"	12"	108"	12"

PIPE ALLOWANCES					
CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER				
	CONCRETE	ALL METAL	CPSSP ① PP ④	SOLID WALL PVC ②	PROFILE WALL PVC ③
48"	24"	30"	24"	30"	30"
54"	30"	36"	30"	36"	36"
60"	36"	42"	36"	42"	42"
72"	42"	54"	42"	48"	48"
84"	54"	60"	54"	48"	48"
96"	60"	72"	60"	48"	48"
120"	66"	84"	60"	48"	48"
144"	78"	96"	60"	48"	48"

- ① Corrugated Polyethylene Storm Sewer Pipe  
(See **Standard Specification Section 9-05.20**)
- ② (See **Standard Specification Section 9-05.12(1)**)
- ③ (See **Standard Specification Section 9-05.12(2)**)
- ④ Polypropylene Pipe (See **Standard Specification Section 9-05.24**)



**CATCH BASIN TYPE 2**

**STANDARD PLAN B-10.20-02**

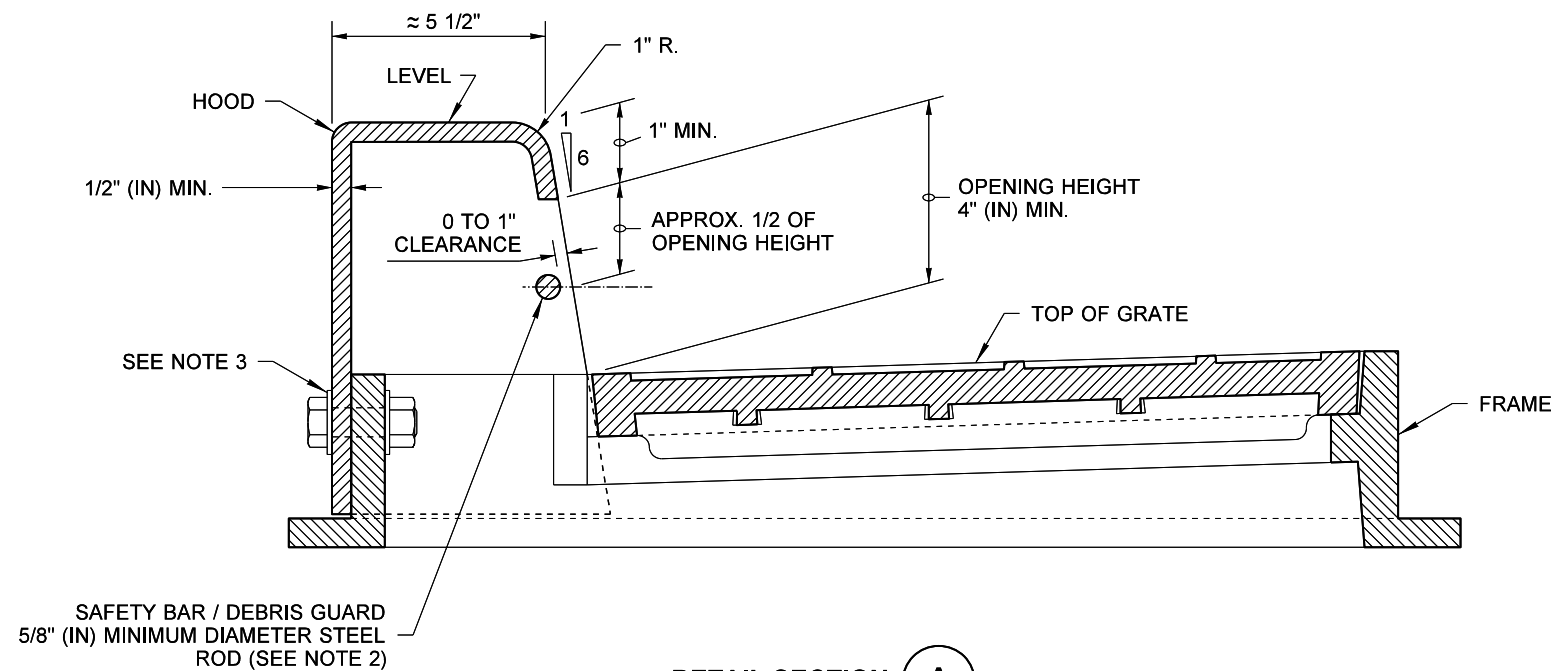
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

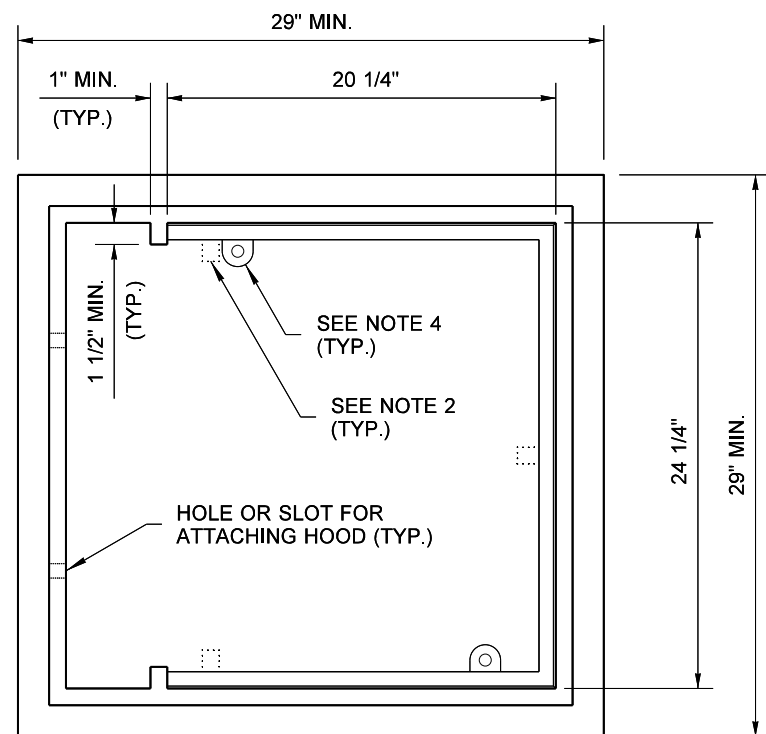
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Washington State Department of Transportation



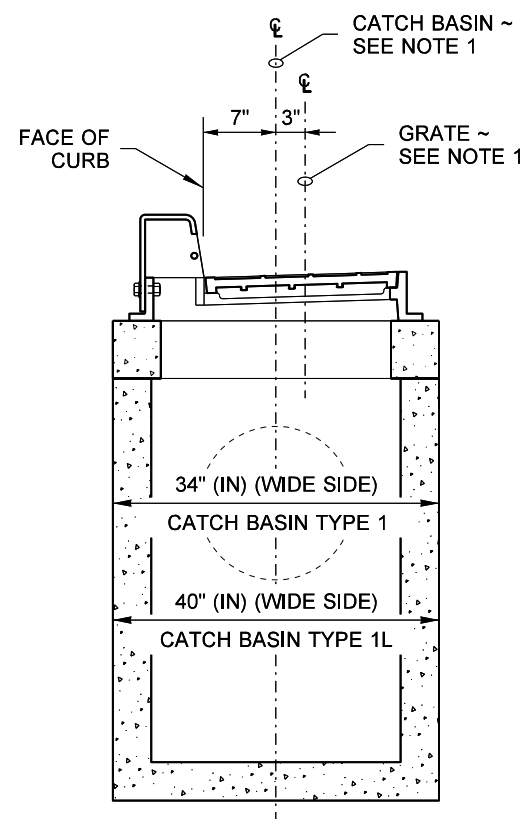
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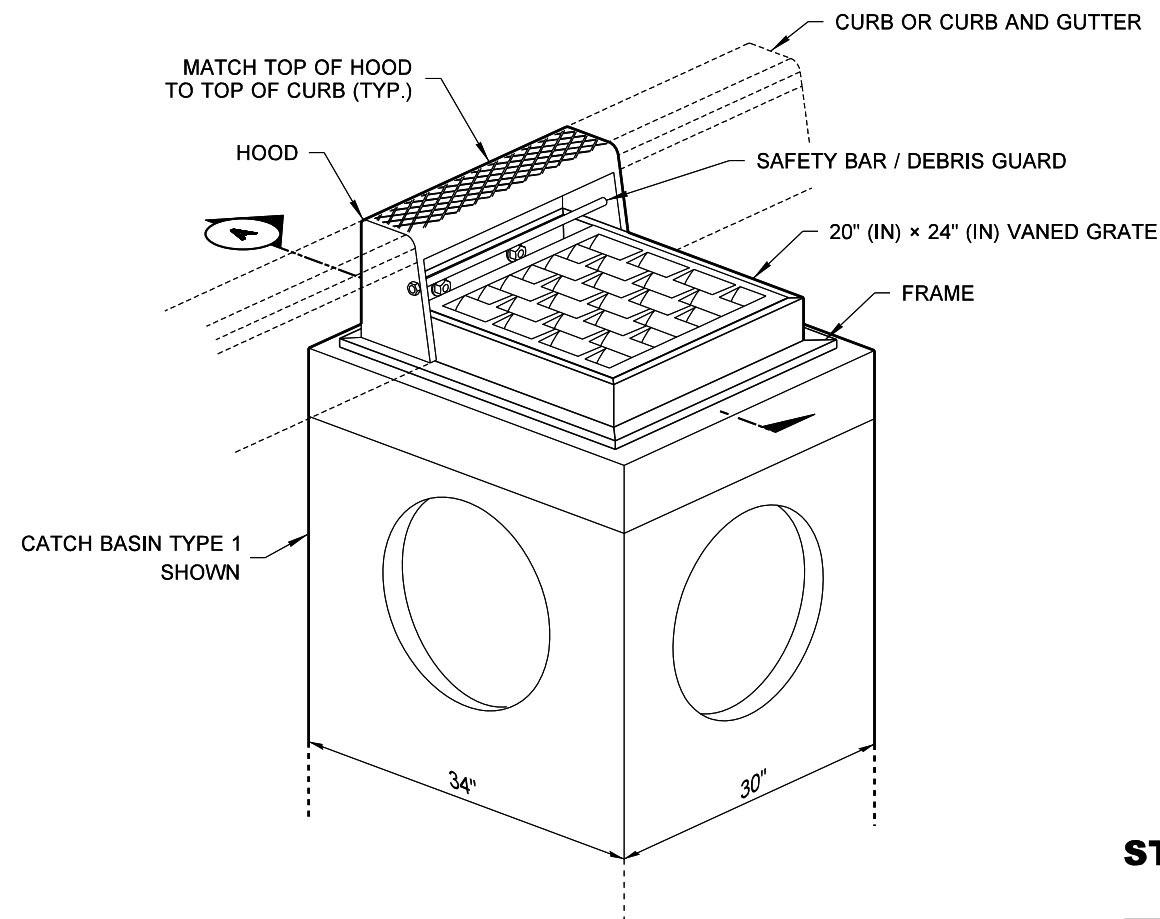
DETAIL SECTION A



TOP VIEW  
FRAME DETAIL



SECTION A



ISOMETRIC VIEW  
COMBINATION INLET  
FRAME, HOOD, AND VANED GRATE

## NOTES

1. This inlet requires the precast catch basin unit to be rotated 90 degrees so that the narrow side is parallel to the curb line. When calculating offsets from curb to centerline (CL) of the precast catch basin, please note that the CL of the grate is not the CL of the precast catch basin. See **Section A**.
2. The dimensions of the frame and hood may vary slightly among different manufacturers. The Frame may have cast features intended to support a debris guard. Hood units may be mounted inside or outside of the frame. The methods for fastening the safety bar / debris guard rod to the hood may vary. The hood may include casting lugs. The top of the hood may be cast with a pattern.
3. Attach the hood to the frame with two 3/4" (in) x 2" (in) hex head bolts, nuts, and oversize washers. The washers shall have diameters adequate to ensure full bearing across the slots.
4. Bolt-down capability is required on all frames, grates and covers, unless specified otherwise in the Contract. Provide two holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC x 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer. See **BOLT-DOWN DETAIL, Standard Plan B-30.10**.
5. Only ductile iron Vaned Grates shall be used. See **Standard Plans B-30.30 and B-30.40** for grate details. Refer to **Standard Specification Section 9-05.15(2)** for additional requirements.
6. This plan is intended to show the installation details of a manufactured product. This plan is not intended to show the specific details necessary to fabricate the castings depicted in this drawing.



## COMBINATION INLET

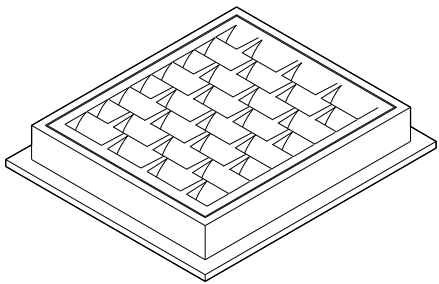
### STANDARD PLAN B-25.20-02

SHEET 1 OF 1 SHEET

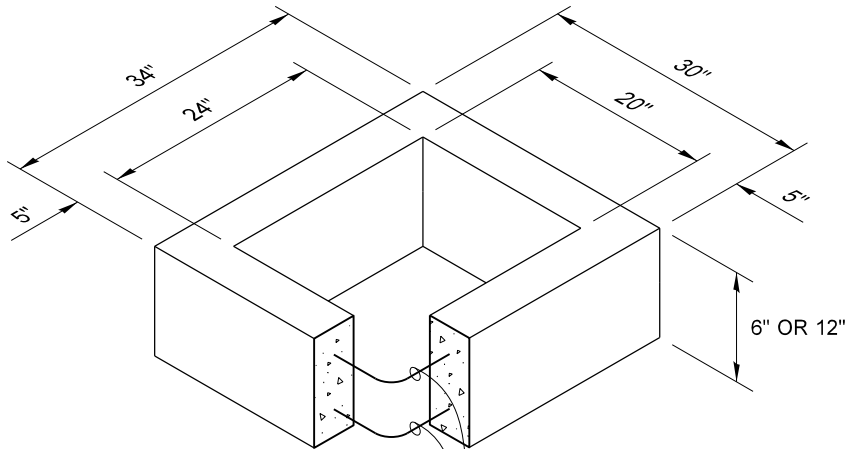
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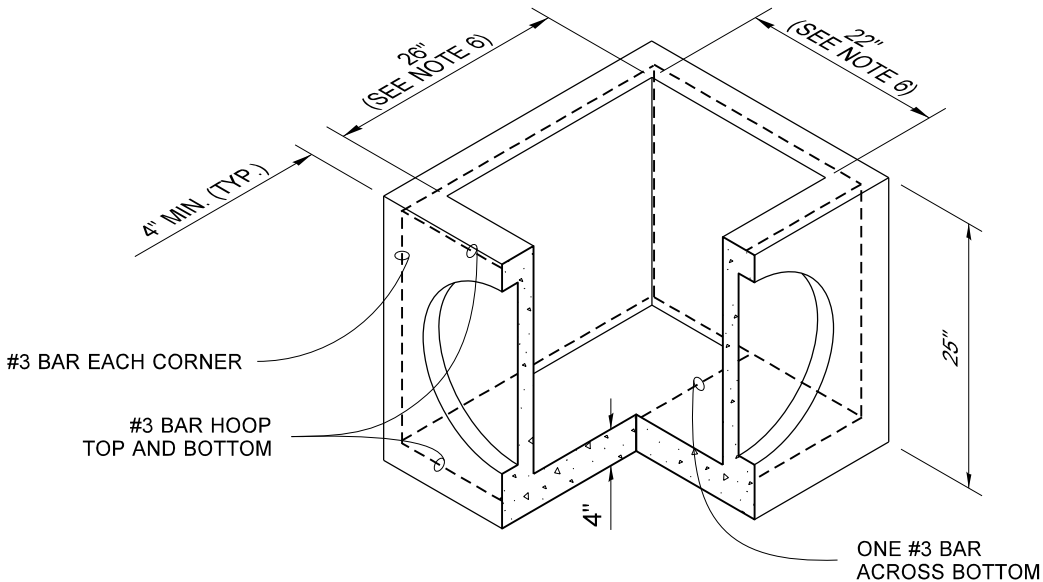


FRAME AND VANED GRATE

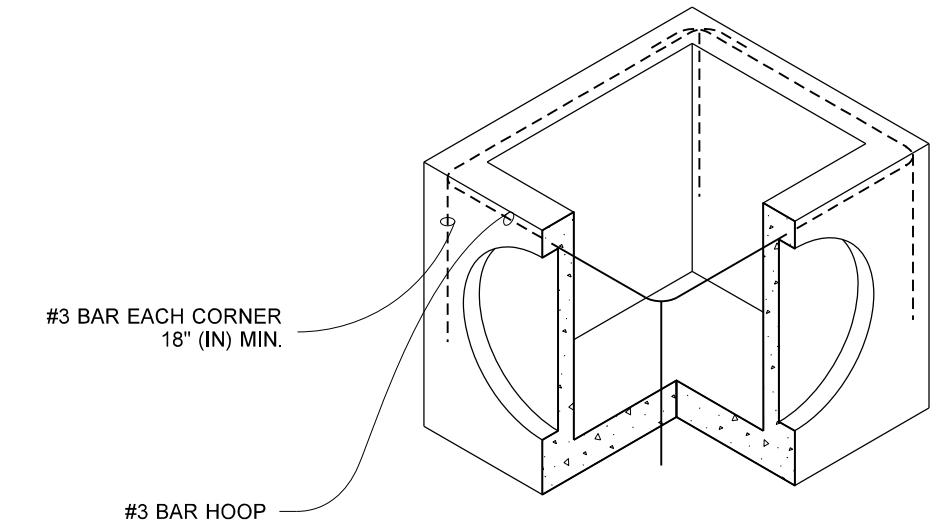


ONE #3 BAR HOOP FOR 6" (IN) HEIGHT  
TWO #3 BAR HOOPS FOR 12" (IN) HEIGHT

RECTANGULAR ADJUSTMENT SECTION



PRECAST BASE SECTION



SEE NOTE 1  
ALTERNATIVE PRECAST BASE SECTION

PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER (INCHES)
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP ★ (STD. SPEC. SECT. 9-05.20)	12"
POLYPROPYLENE (STD. SPEC. SECT. 9-05.24)	12"
SOLID WALL PVC (STD. SPEC. SECT. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. SECT. 9-05.12(2))	15"

★ CORRUGATED POLYETHYLENE  
STORM SEWER PIPE

NOTES

- As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the **ALTERNATIVE PRECAST BASE SECTION**. Wire mesh shall not be placed in the knockouts.
- The knockout diameter shall not be greater than 18" (in) . Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.
- The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
- The frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
- The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
- The opening shall be measured at the top of the precast base section.
- All pickup holes shall be grouted full after the inlet has been placed.

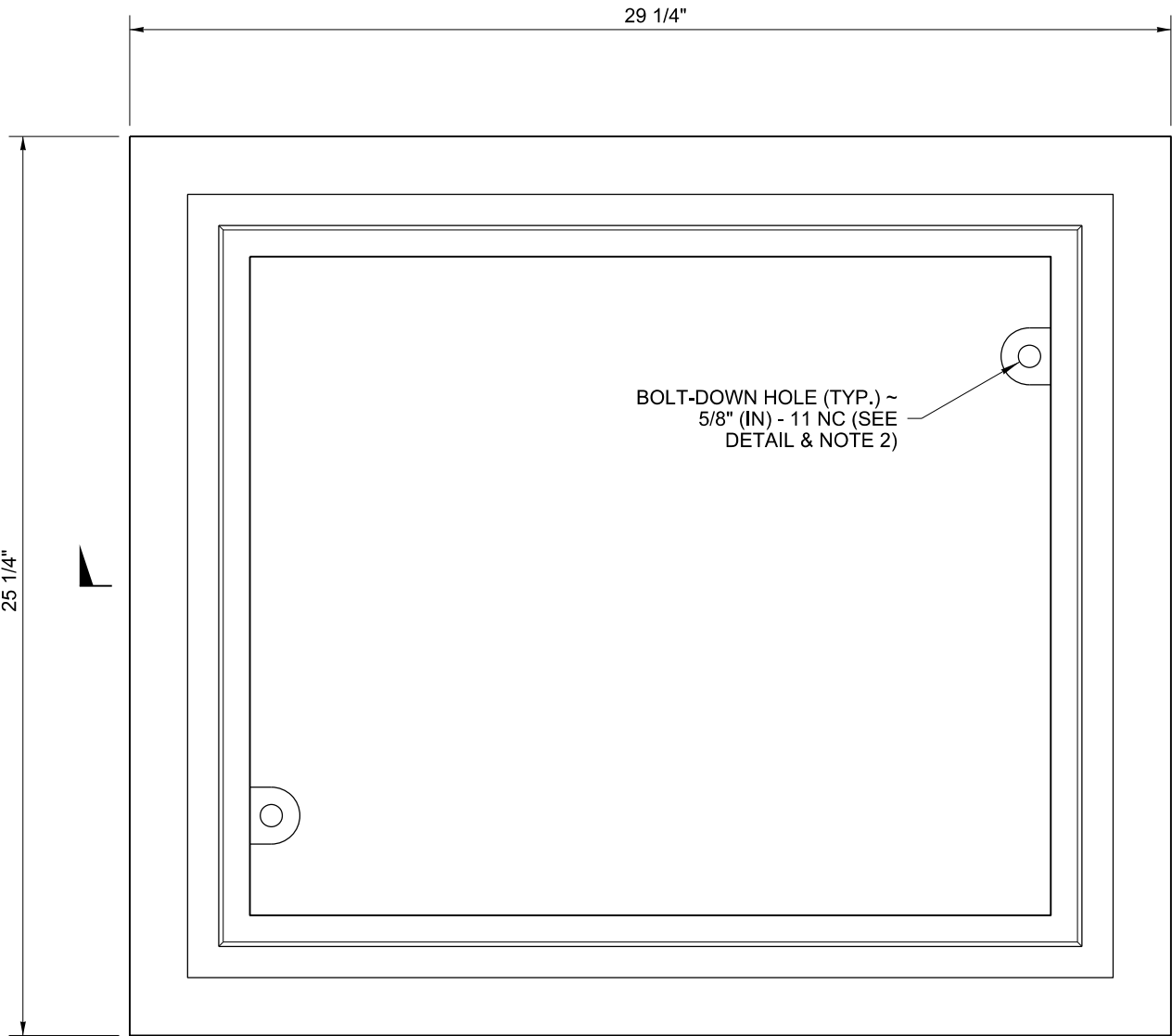


CONCRETE INLET  
STANDARD PLAN B-25.60-02

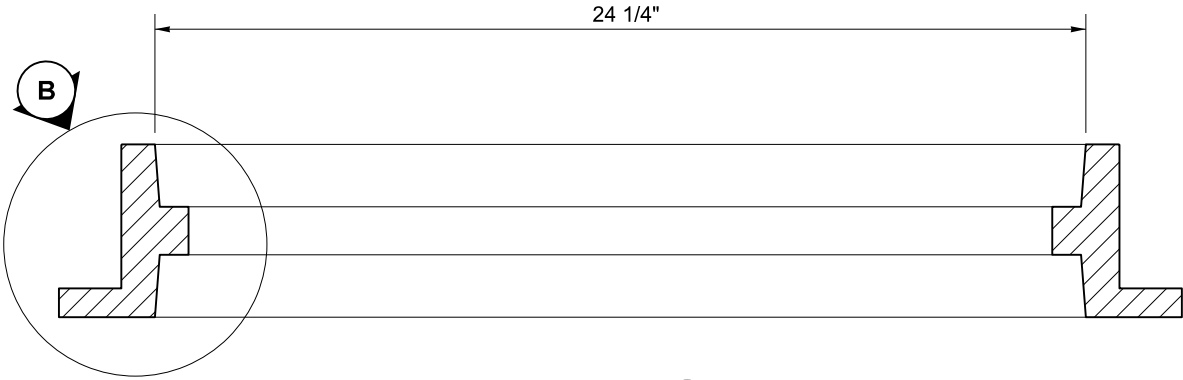
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

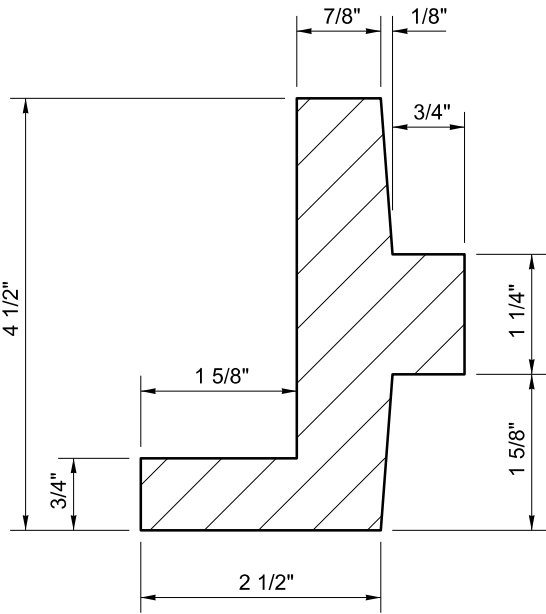
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Washington State Department of Transportation



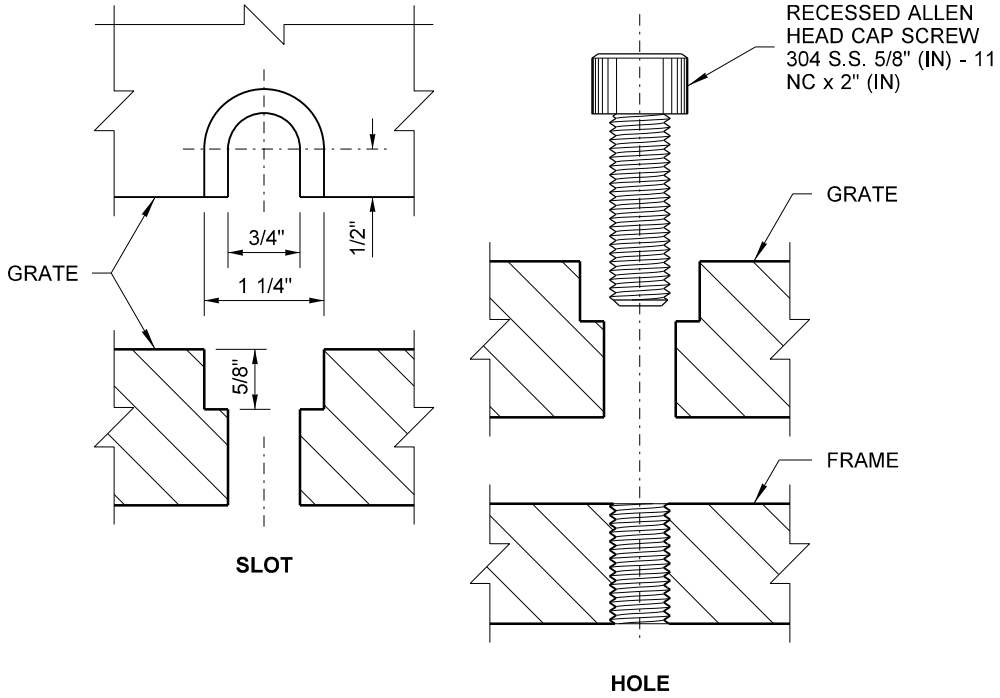
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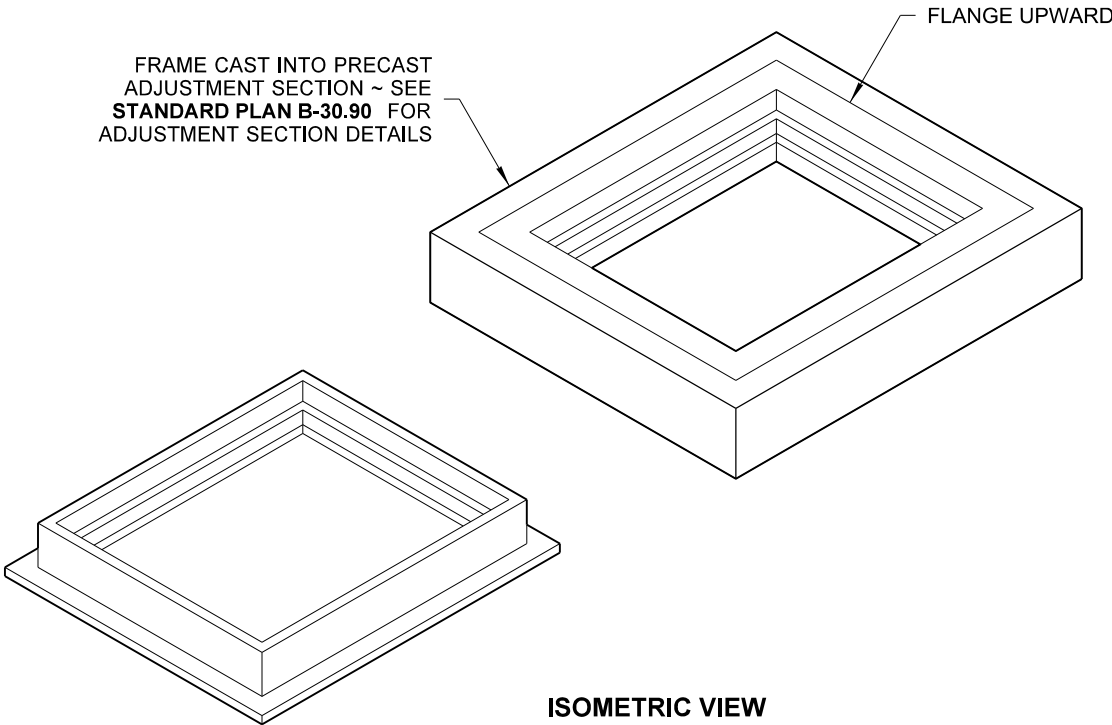
SECTION A



DETAIL B



BOLT-DOWN DETAILS  
SEE NOTE 2



ISOMETRIC VIEW  
SHOWING THE VARIATIONS

NOTES

1. This frame is designed to accommodate 20" (in) × 24" (in) grates or covers as shown on **Standard Plans B-30.20, B-30.30, B-30.40, and B-30.50.**
2. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC × 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
3. Refer to **Standard Specification Section 9-05.15** and **9-05.15(2)** for additional requirements.



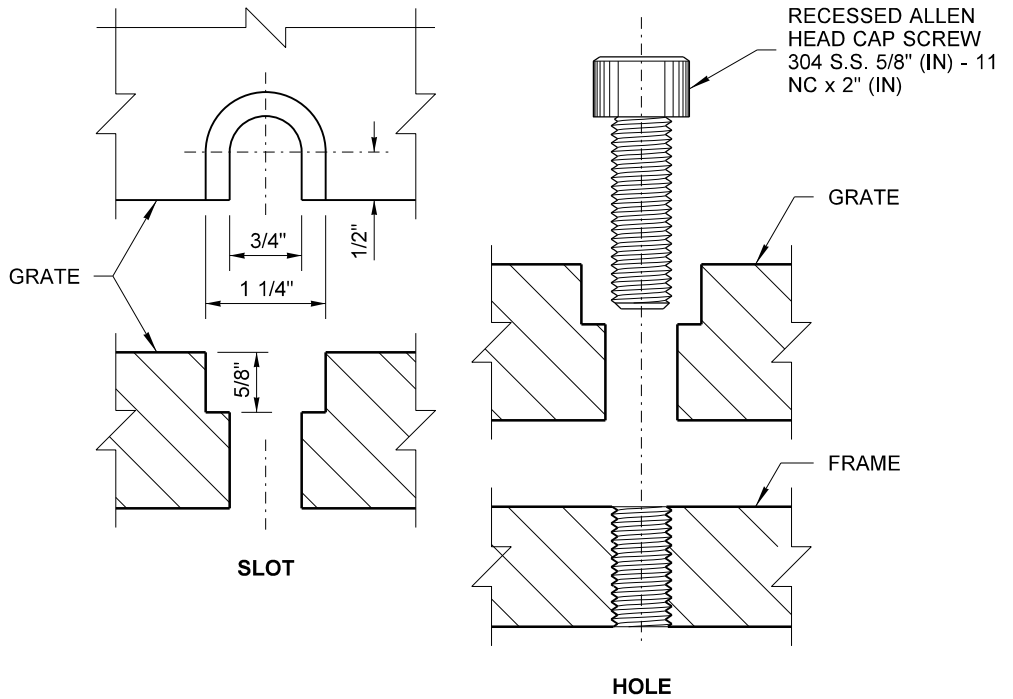
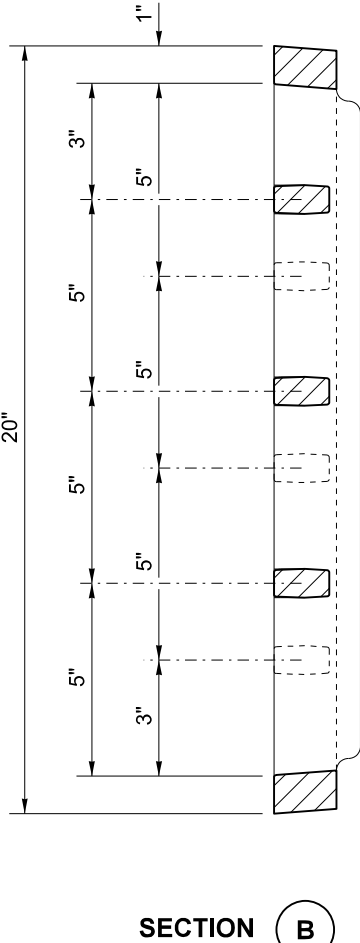
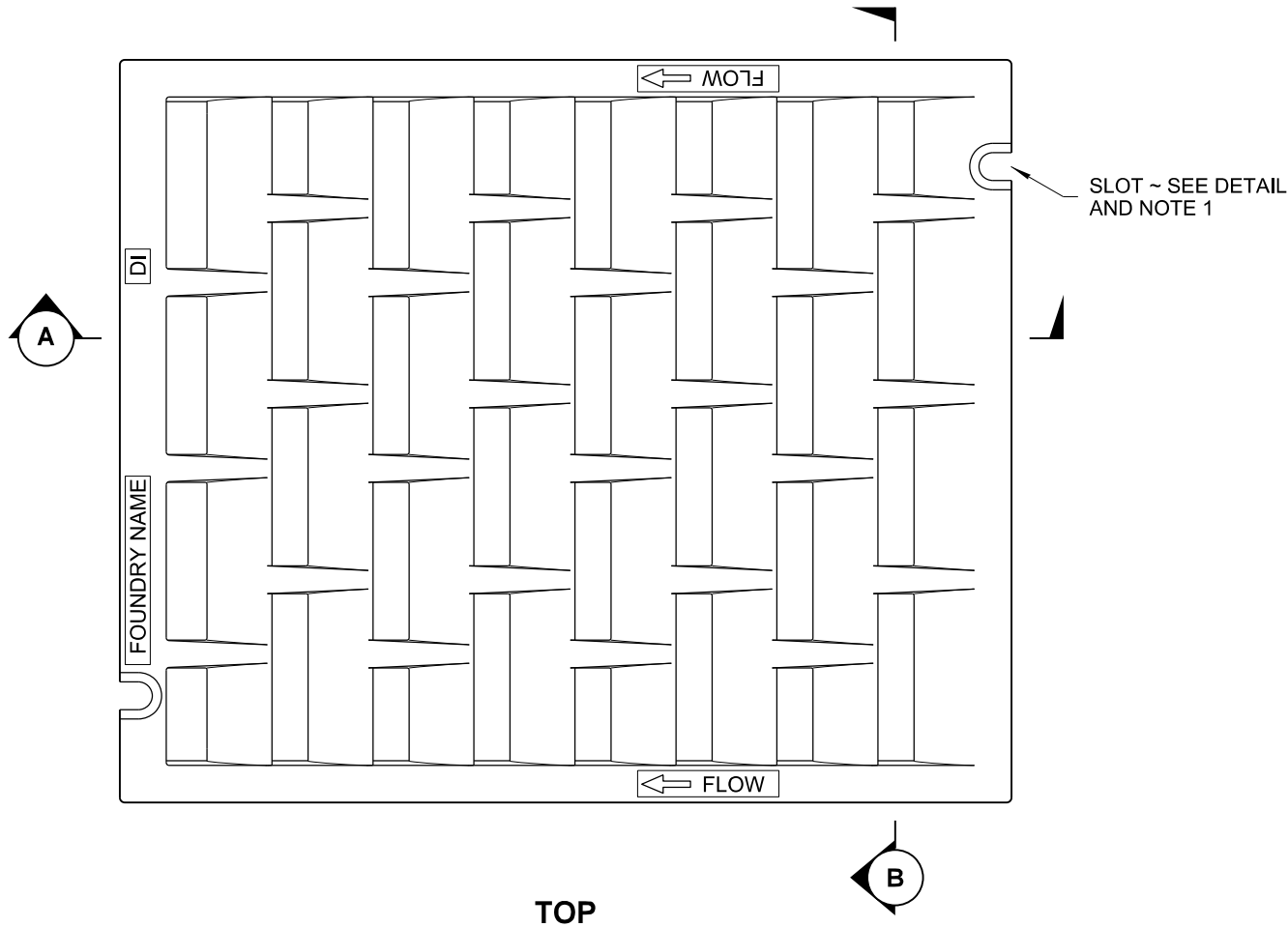
**RECTANGULAR FRAME  
(REVERSIBLE)**  
**STANDARD PLAN B-30.10-03**

SHEET 1 OF 1 SHEET

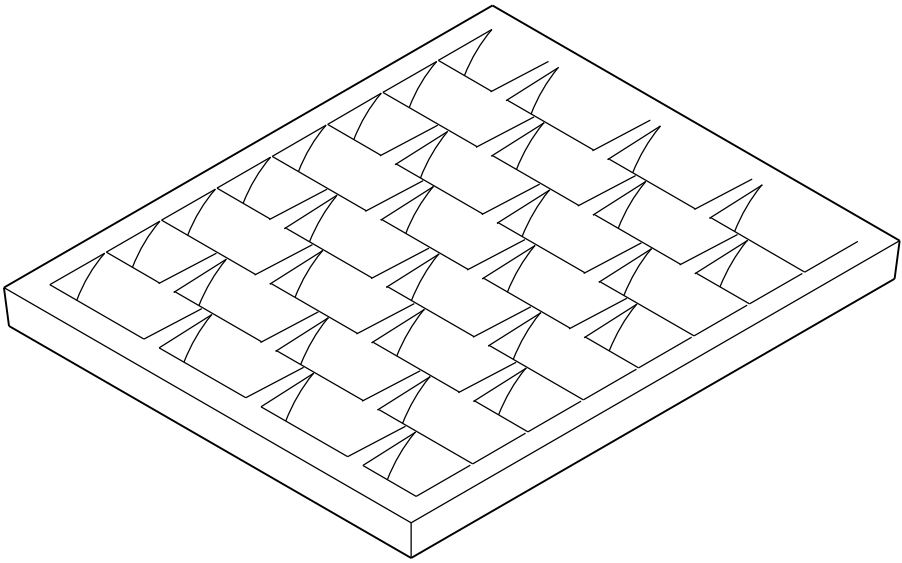
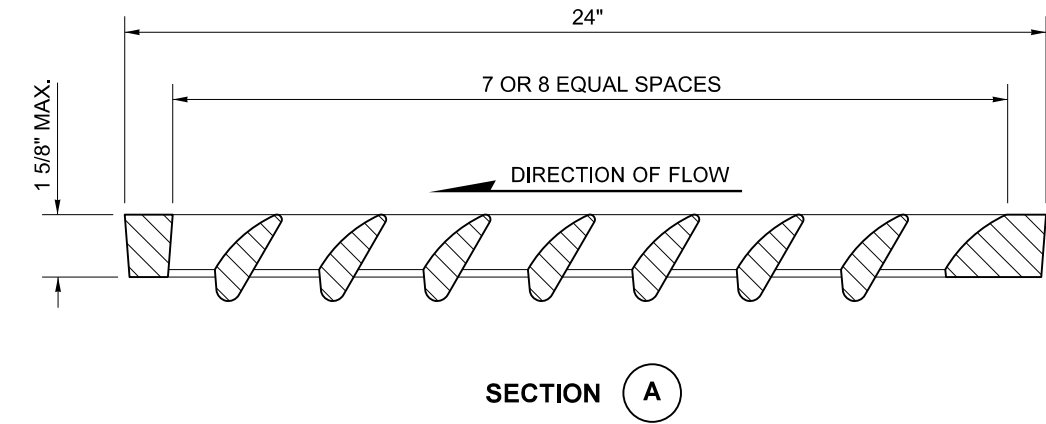
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STATE DESIGN ENGINEER  
Washington State Department of Transportation

DRAWN BY: FERN LIDDELL



BOLT-DOWN DETAILS  
SEE NOTE 1



ISOMETRIC

NOTES

1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC x 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
2. Refer to **Standard Specification Section 9-05.15** and **9-05.15(2)** for additional requirements.
3. For frame details, see **Standard Plan B-30.10**.

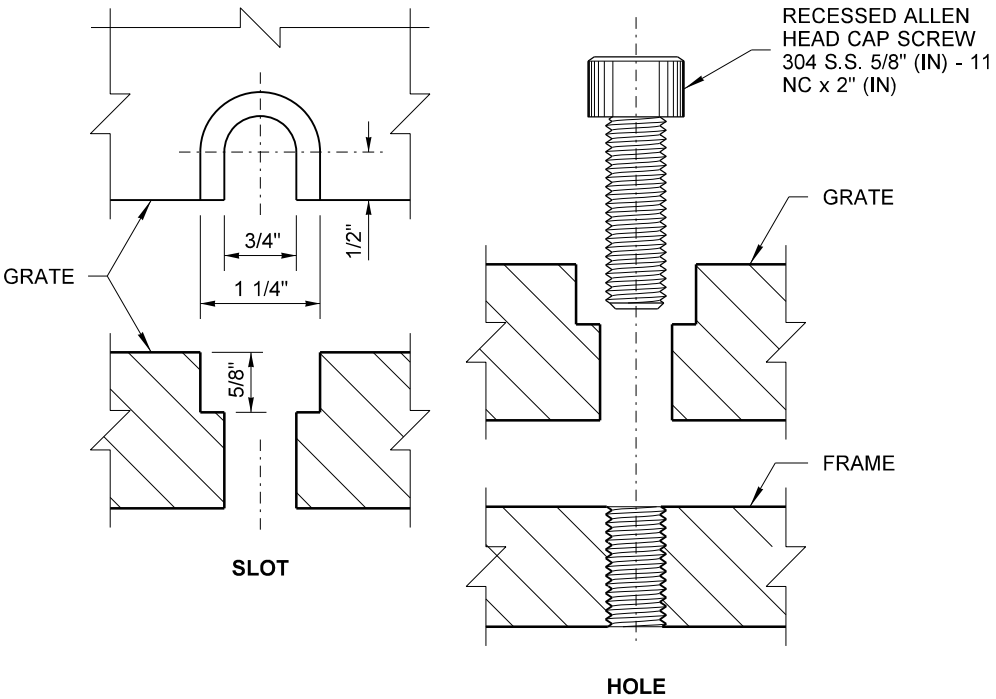
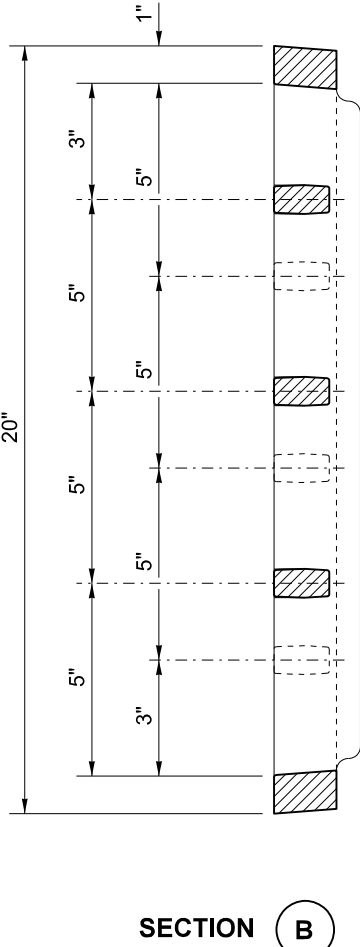
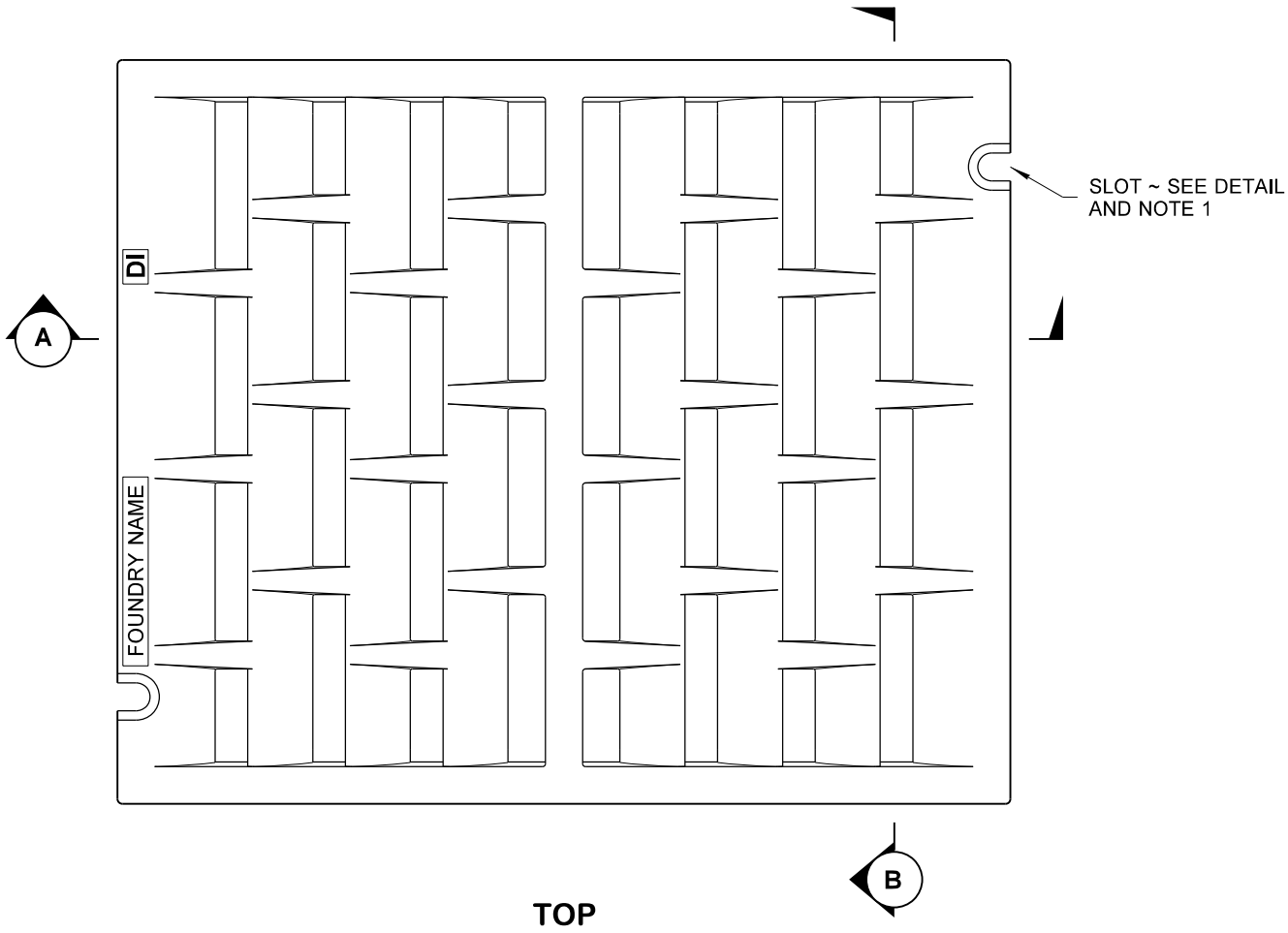


**RECTANGULAR  
VANED GRATE**  
**STANDARD PLAN B-30.30-03**

SHEET 1 OF 1 SHEET

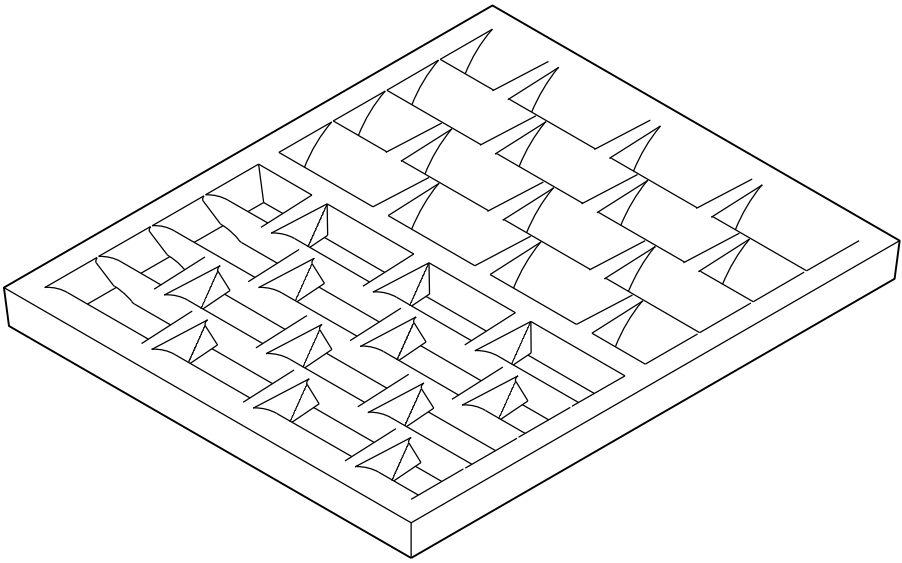
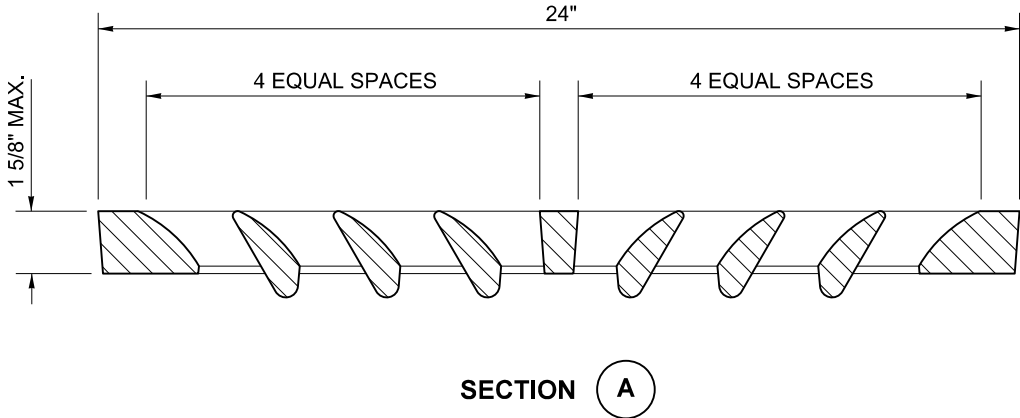
APPROVED FOR PUBLICATION

DRAWN BY: FERN LIDDELL



NOTES

1. Bolt-down capability is required on all frames, grates, and covers, unless specified otherwise in the Contract. Provide 2 holes in the frame that are vertically aligned with the grate or cover slots. The frame shall accept the 304 Stainless Steel (S.S.) 5/8" (in) - 11 NC x 2" (in) allen head cap screw by being tapped, or other approved mechanism. Location of bolt-down holes varies by manufacturer.
2. Refer to **Standard Specification Section 9-05.15**, and **9-05.15(2)** for additional requirements.
3. For frame details, see **Standard Plan B-30.10**.



ISOMETRIC

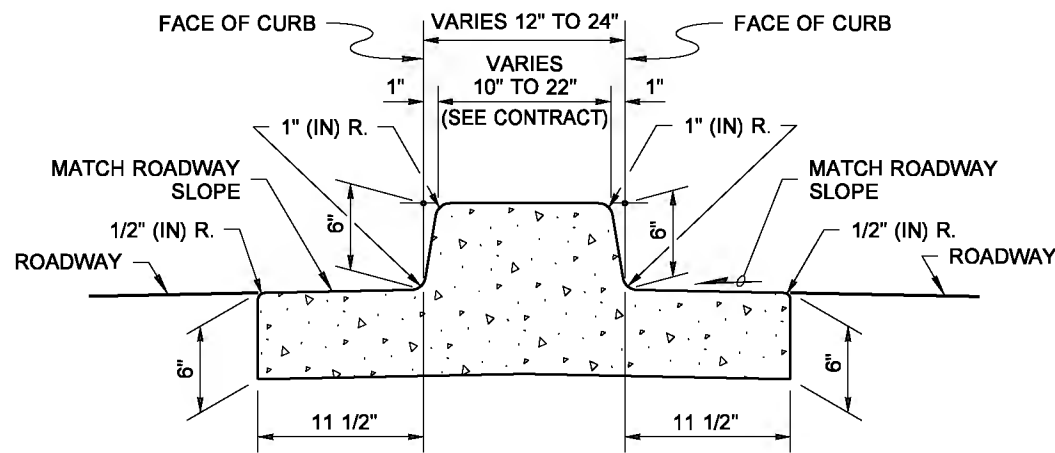


**RECTANGULAR  
BI-DIRECTIONAL  
VANED GRATE  
STANDARD PLAN B-30.40-03**

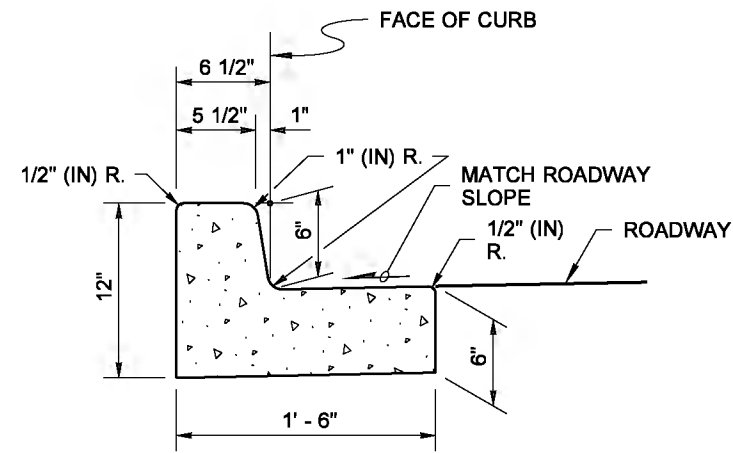
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APPROVED FOR PUBLICATION

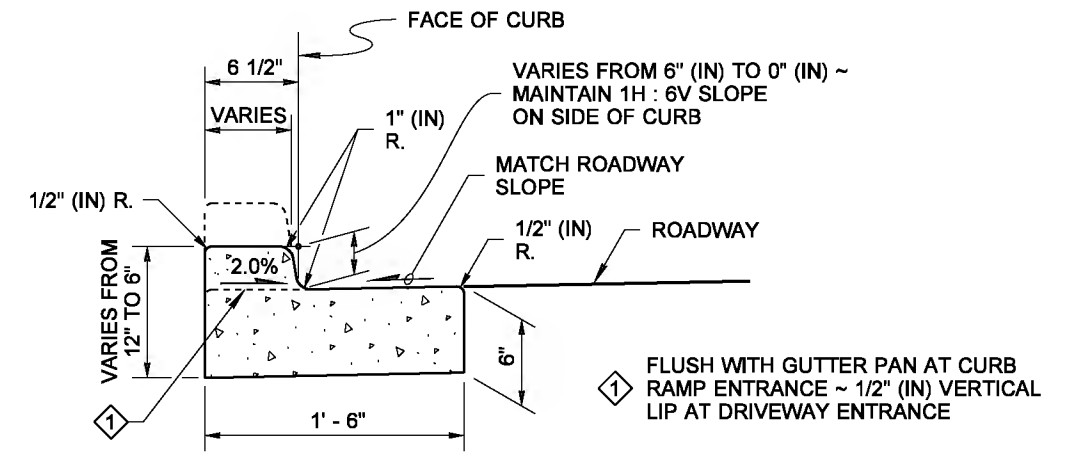
STATE DESIGN ENGINEER  
Washington State Department of Transportation



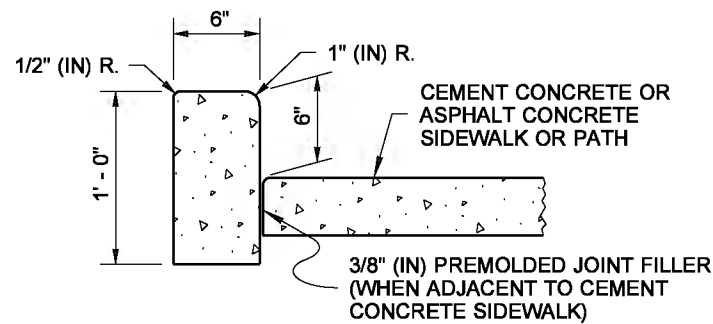
**DUAL-FACED CEMENT CONCRETE  
TRAFFIC CURB AND GUTTER**



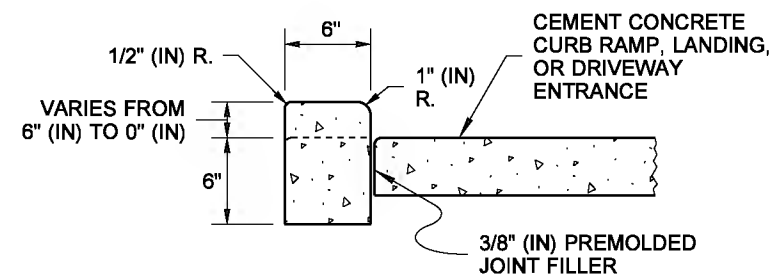
**CEMENT CONCRETE  
TRAFFIC CURB AND GUTTER**



**DEPRESSED CURB SECTION  
AT CURB RAMP AND  
DRIVEWAY ENTRANCES**



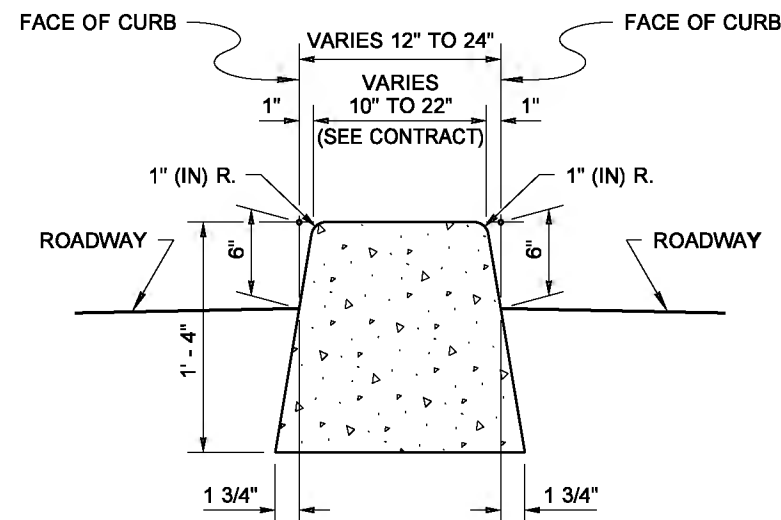
**CEMENT CONCRETE PEDESTRIAN CURB**



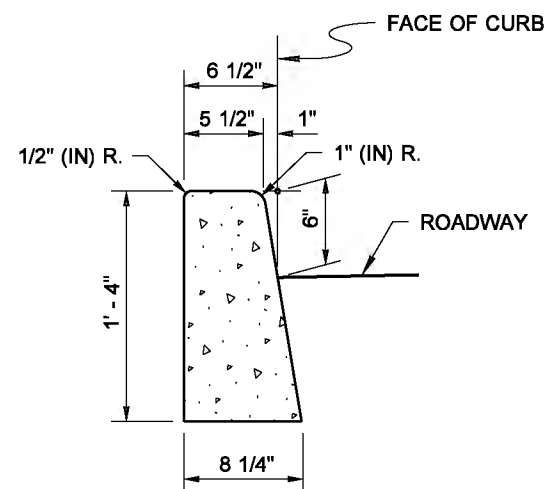
**CEMENT CONCRETE PEDESTRIAN CURB  
AT CURB RAMP, LANDINGS,  
AND DRIVEWAY ENTRANCES**

**NOTE**

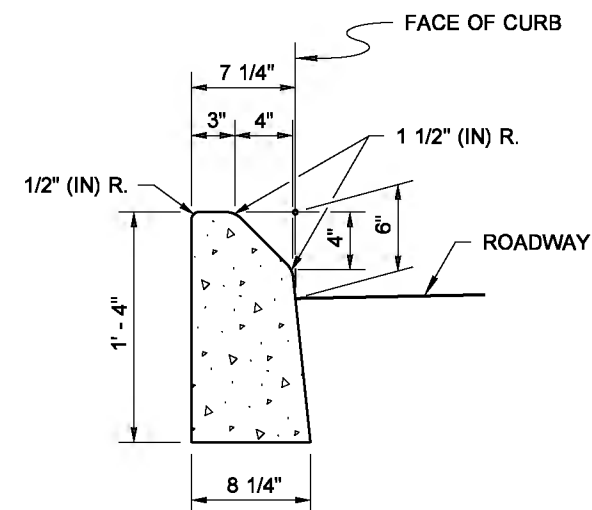
1. See **Standard Plan F-30.10** for Curb Expansion and Contraction Joint spacing and see **Standard Specification Sections 8-04 and 9-04** for additional requirements.



**DUAL-FACED CEMENT  
CONCRETE TRAFFIC CURB**



**CEMENT CONCRETE  
TRAFFIC CURB**



**MOUNTABLE CEMENT  
CONCRETE TRAFFIC CURB**



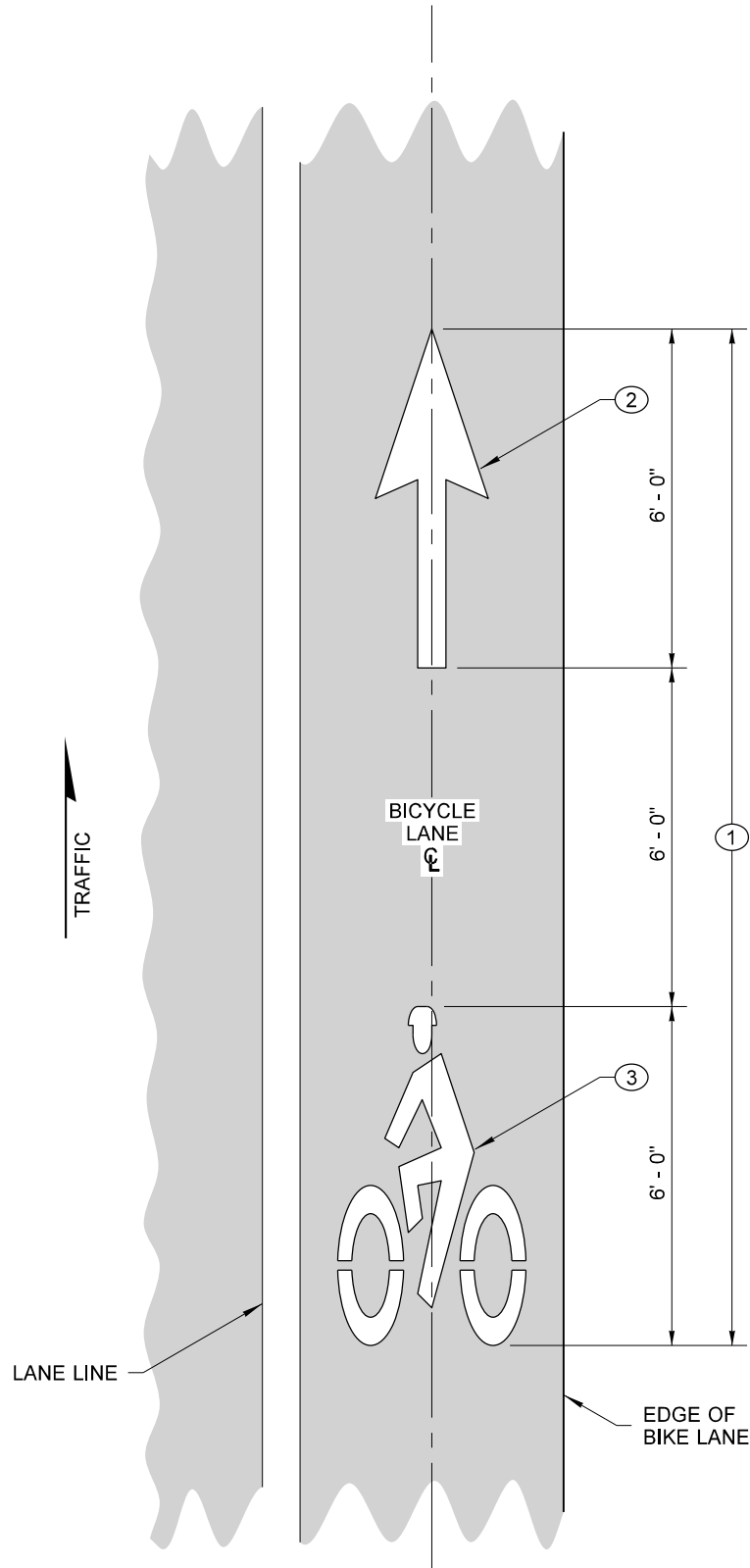
**CEMENT CONCRETE CURBS**

**STANDARD PLAN F-10.12-03**

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

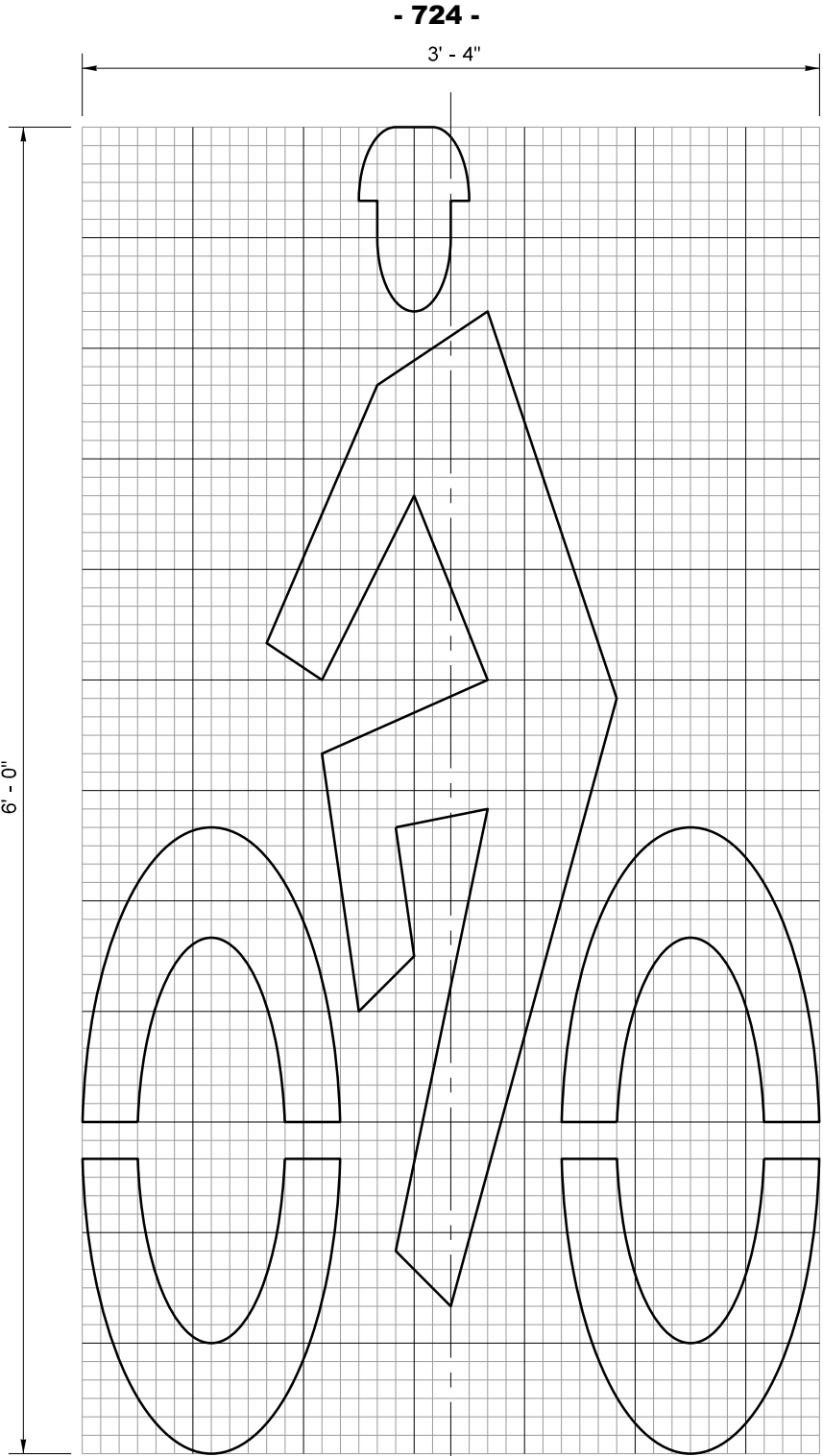
STATE DESIGN ENGINEER  
Washington State Department of Transportation



**BICYCLE LANE SYMBOL  
LAYOUT**

**KEY NOTES**

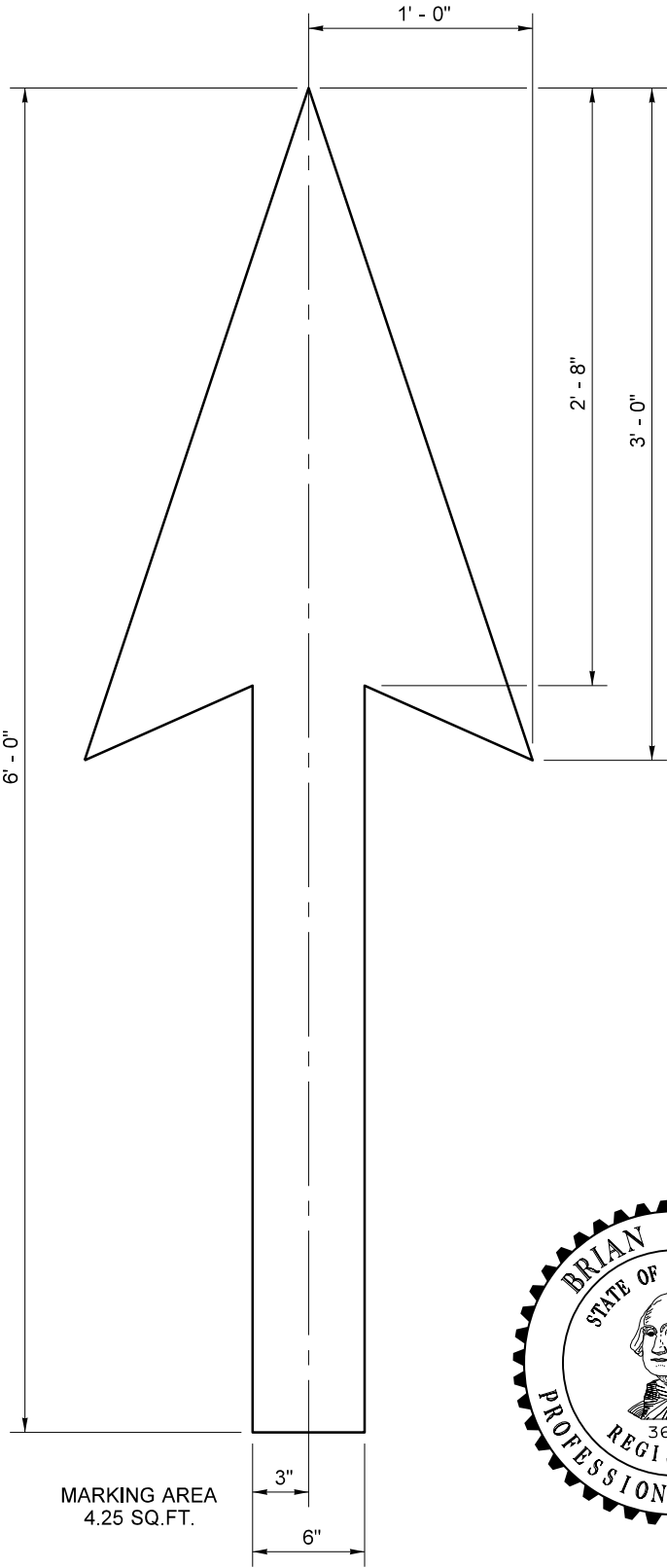
- ① Bid Item "Bicycle Lane Symbol" includes Bike Lane Arrow and Bike Rider Symbol.
- ② 2' (ft) x 6' (ft) White Bike Lane Arrow.
- ③ Bike Rider Symbol.



**BIKE RIDER SYMBOL  
DETAIL**

**GENERAL NOTE**

See Contract for location and material requirements.



**BIKE LANE ARROW  
DETAIL**



**BICYCLE LANE SYMBOL  
LAYOUT**

**STANDARD PLAN M-9.50-02**

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

**APPENDIX G**  
**GREEN ROADS FORMS**



**APPENDIX G-1**  
**QUALITY CONTROL PLAN**

# QUALITY CONTROL PLAN

## PERSONNEL AND RESPONSIBILITIES

This form must be prepared and completed by the prime contractor or independent construction manager for your Greenroads project (independent of the owner and the designer teams). The prime contractor or construction manager does not need to complete this template if a separate Quality Control Plan is already developed.

<b>Name:</b>
<b>Address:</b>
<b>Phone:</b>

### SIGNATURE BY PRIME CONTRACTOR OR INDEPENDENT CONSTRUCTION MANAGER

This quality control plan is true and complete to the best of my knowledge.

_____	_____
Signature*	Date Submitted

**\*NOTE: Digital signatures are accepted.**

### 1. KEY QUALITY PERSONNEL

- a. Provide background information for key project personnel including contact information, qualifications, and project responsibilities.

<b>Name:</b>	<b>Phone:</b>
<b>Company:</b>	<b>Email:</b>
<b>Title:</b>	<b>Project Role:</b>
<b>Qualifications:</b>	
<b>Responsibilities:</b>	

<b>Name:</b>	<b>Phone:</b>
<b>Company:</b>	<b>Email:</b>
<b>Title:</b>	<b>Project Role:</b>
<b>Qualifications:</b>	
<b>Responsibilities:</b>	

<b>Name:</b>	<b>Phone:</b>
<b>Company:</b>	<b>Email:</b>
<b>Title:</b>	<b>Project Role:</b>
<b>Qualifications:</b>	
<b>Responsibilities:</b>	

b. Are there any project personnel who possess the authority to stop all work on the basis of noncompliance?

☐ No

☐ Yes (indicate which personnel below)

## 2. SUBCONTRACTORS

Provide a list of subcontractors responsible for major scopes of work, including major construction operations, rehabilitation, quality control oversight, testing, and project control.

Company Name	Project Manager	Foreman	Scope of Work

## QUALITY CONTROL PLAN

**NOTE:** the prime contractor or independent construction manager may want to consider items not included in this quality control plan template.

### 1. DEFINABLE FEATURES

Please check all definable features of work that are applicable to the project's scope of work.

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Survey (by others)   | <input type="checkbox"/> Roadway Earthwork      | <input type="checkbox"/> Pavement Marking  |
| <input type="checkbox"/> Sanitary Sewer       | <input type="checkbox"/> Structural Earth Walls | <input type="checkbox"/> Warm Mix Asphalt  |
| <input type="checkbox"/> Sewer Rehabilitation | <input type="checkbox"/> Irrigation             | <input type="checkbox"/> Lighting          |
| <input type="checkbox"/> Storm Sewer          | <input type="checkbox"/> Curb & Gutter          | <input type="checkbox"/> Handrail          |
| <input type="checkbox"/> Water Service        | <input type="checkbox"/> Sidewalk               | <input type="checkbox"/> Permanent Signing |
| <input type="checkbox"/> Electrical           | <input type="checkbox"/> Landscaping            | <input type="checkbox"/> Other (see below) |

If additional definable features are not provided in the list above, list them in the space below.

### 2. CONTROL PROCEDURES AND MEASURES

- Generally describe your company's quality control system or quality assurance procedures that will be applied to this project specifically. If the system or procedures are part of your company's standard, please indicate so.
- Complete the table for each of the project's definable features. **For each feature, indicate a responsible party and describe any quality control procedures or measures employed. If applicable, the description should also include testing and inspection requirements (or methods) as well as frequency.**

Definable Feature	Responsible Parties	Description of Quality Control Procedures

### 3. TRACKING AND DOCUMENTATION

---

a. Briefly describe how tracking or inspection reports will be documented, maintained, or filed as work as completed for the project.

b. Does your company use a **standard tracking report** for documenting quality control?  
If no, please indicate how your company intends to report document inspection and test results  
If yes, please attach a blank copy of a tracking report.

☐ No (explain below)

☐ Yes (attach blank tracking report)

- ## Quality Control Plan

**APPENDIX G-2**  
**WASTE MANAGEMENT AND**  
**SITE RECYCLING PLAN**



# WASTE MANAGEMENT PLAN

## GENERAL PROJECT INFORMATION

Use this template with the Waste Management Plan spreadsheet to track and report waste volume/weights, handling procedures, fees and other required information. This form is intended to be completed by the prime contractor or an independent construction manager representing the construction team.

**Project Name:**

**Work Order:**

**Project Period**

**FROM:**

**TO:**

**Prepared by:**

**Location of Plan (i.e. Posted on Site):**

## LOCATION OF RECEPTACLES

Attach a map highlighting all locations of waste stockpiles and/or receptacles on site, including office locations.

## QUANTITIES OF WASTE MATERIALS

Attach a completed spreadsheet for waste materials tracking, quantities and costs.

## PROJECT ROLES AND RESPONSIBILITIES

This form must be signed and completed by the prime contractor and represent any parties responsible for implementing and oversight of waste management, diversion, and recycling activities throughout construction.

## SIGNATURE BY RESPONSIBLE PARTY

This waste management plan is true and complete to the best of my knowledge. (Digital signatures accepted.)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Name:**

**Company:**

**Address:**

**Title:**

**Phone:**

**Email:**

## RESPONSIBLE PARTIES - HAULING

If different than above, please provide information for the party or parties responsible for hauling materials:

**Company:**

**Address:**

**Material Types:**

**Phone:**

**Email:**

## DISPOSAL SITES AND MATERIAL PROCESSING FACILITIES

Please provide contact information for the collection company at each disposal site or materials handling facility used for Your Project.

<b>Company:</b>	<b>Phone:</b>
<b>Distance to Site:</b>	<b>Email:</b>
<b>Address:</b>	
<b>Facility Type:</b>	

<b>Company:</b>	<b>Phone:</b>
<b>Distance to Site:</b>	<b>Email:</b>
<b>Address:</b>	
<b>Facility Type:</b>	

<b>Company:</b>	<b>Phone:</b>
<b>Distance to Site:</b>	<b>Email:</b>
<b>Address:</b>	
<b>Facility Type:</b>	

## DIVERSION AND RECOVERY

Please describe diversion and recovery goals for different waste material types generated on Your Project.

Waste Material	Expected Tonnage to be Generated	Target Tonnage for Diversion or Recovery	Description of Diversion or Recovery Activity(ies):

## **JOBSITE HOUSEKEEPING**

Please describe the management strategy for waste, recyclables and compostables generated from mobile office activities and personal worker and/or household waste.

## **COMMUNICATION & TRAINING ACTIVITIES**

Please describe the steps that will be taken to inform both contractors and subcontractors of the waste management plan and/or diversion policies in effect for Your Project.

Describe any required training for site employees related to waste management and recycling.

## **MONITORING AND CORRECTIVE ACTION**

Describe the contractor's procedures for monitoring waste management and recycling according to this plan.

Describe the contractor's procedure for implementing a corrective action for non-compliance with this plan.

Describe the contractor's procedure to modify the waste management plan if methods are found ineffective and/or insufficient or when modifications are necessary.

**APPENDIX G-3  
WORK MANAGEMENT PLAN  
(NOISE IMPACTS)**

# WASTE MANAGEMENT PLAN

## GENERAL PROJECT INFORMATION

Use this template with the Waste Management Plan spreadsheet to track and report waste volume/weights, handling procedures, fees and other required information. This form is intended to be completed by the prime contractor or an independent construction manager representing the construction team.

**Project Name:**

**Work Order:**

**Project Period**

**FROM:**

**TO:**

**Prepared by:**

**Location of Plan (i.e. Posted on Site):**

## LOCATION OF RECEPTACLES

Attach a map highlighting all locations of waste stockpiles and/or receptacles on site, including office locations.

## QUANTITIES OF WASTE MATERIALS

Attach a completed spreadsheet for waste materials tracking, quantities and costs.

## PROJECT ROLES AND RESPONSIBILITIES

This form must be signed and completed by the prime contractor and represent any parties responsible for implementing and oversight of waste management, diversion, and recycling activities throughout construction.

## SIGNATURE BY RESPONSIBLE PARTY

This waste management plan is true and complete to the best of my knowledge. (Digital signatures accepted.)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Name:**

**Company:**

**Address:**

**Title:**

**Phone:**

**Email:**

## RESPONSIBLE PARTIES - HAULING

If different than above, please provide information for the party or parties responsible for hauling materials:

**Company:**

**Address:**

**Material Types:**

**Phone:**

**Email:**

## DISPOSAL SITES AND MATERIAL PROCESSING FACILITIES

Please provide contact information for the collection company at each disposal site or materials handling facility used for Your Project.

<b>Company:</b>	<b>Phone:</b>
<b>Distance to Site:</b>	<b>Email:</b>
<b>Address:</b>	
<b>Facility Type:</b>	

<b>Company:</b>	<b>Phone:</b>
<b>Distance to Site:</b>	<b>Email:</b>
<b>Address:</b>	
<b>Facility Type:</b>	

<b>Company:</b>	<b>Phone:</b>
<b>Distance to Site:</b>	<b>Email:</b>
<b>Address:</b>	
<b>Facility Type:</b>	

## DIVERSION AND RECOVERY

Please describe diversion and recovery goals for different waste material types generated on Your Project.



Waste Material	Expected Tonnage to be Generated	Target Tonnage for Diversion or Recovery	Description of Diversion or Recovery Activity(ies):

## **JOBSITE HOUSEKEEPING**

Please describe the management strategy for waste, recyclables and compostables generated from mobile office activities and personal worker and/or household waste.

## **COMMUNICATION & TRAINING ACTIVITIES**

Please describe the steps that will be taken to inform both contractors and subcontractors of the waste management plan and/or diversion policies in effect for Your Project.

Describe any required training for site employees related to waste management and recycling.

## **MONITORING AND CORRECTIVE ACTION**

Describe the contractor's procedures for monitoring waste management and recycling according to this plan.

Describe the contractor's procedure for implementing a corrective action for non-compliance with this plan.

Describe the contractor's procedure to modify the waste management plan if methods are found ineffective and/or insufficient or when modifications are necessary.

# CONSTRUCTION IMPACT MITIGATION PLAN

## GENERAL PROJECT INFORMATION

Temporary construction impacts may include, and are not limited to: traffic congestion in the workzone, noise and vibration, fixed and transient sources of light and glare, and odors. This form is not designed to address workzone transportation management plans. It is also not intended to address permanent mitigation (see Credit AL-7 Noise & Glare Reduction) and is specific to the construction phase of work.

If any plans addressing the above issues are separately prepared (such as a workzone traffic management plan, which is very common), attach them to this form. It is acceptable to complete a single comprehensive Impact Plan, or complete separate plans for each of the impacts listed above.

**Project Name:**

**Work Site Location / Address:**

**Project Period:**

**FROM:**

**TO:**

**Prepared by:**

**Distance to Closest Noise/Vibration Receptor:**

**Distance to Closest Light/Glare Receptor:**

**Noise/Vibration Receptor Type & Zoning Designation:**

**Light/Glare Receptor Type & Zoning Designation:**

**Ambient Sound Level (dB):**

**Model Lighting Ordinance Lighting Zone:**

**Permitting Authority:**

**Location of Plan (i.e. Posted on Site):**

## PROJECT ROLES AND RESPONSIBILITIES

This form must be completed and signed by the prime contractor and/or the responsible party designated by the prime contractor.

### SIGNATURE BY RESPONSIBLE PARTY

This plan is true and complete to the best of my knowledge. (Digital signatures are accepted.)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Name:**

**Phone:**

**Company:**

**Fax:**

**Title:**

**Email:**

## CONSTRUCTION IMPACT PERMITS, STANDARDS AND POLICIES

Post weblinks on your Project Page to any applicable noise and glare control codes, standards or other local policies that apply to construction works.

Department Issuing Permit	Permit Number
<input type="checkbox"/> Transportation <input type="checkbox"/> Buildings <input type="checkbox"/> Other:	
<input type="checkbox"/> Transportation <input type="checkbox"/> Buildings <input type="checkbox"/> Other:	
<input type="checkbox"/> Transportation <input type="checkbox"/> Buildings <input type="checkbox"/> Other:	
<input type="checkbox"/> Transportation <input type="checkbox"/> Buildings <input type="checkbox"/> Other:	

## CONSTRUCTION WORK DATES AND OPERATING HOURS

Attach copies of any variances for any construction impacts relevant to this project.

<b>Normal Work Hours:</b>	<b>FROM:</b>	<b>TO:</b>
---------------------------	--------------	------------

Type of Construction Activity	From	To	Applicable Variance?
Demolition Construction Work Dates:			<input type="checkbox"/> Yes <input type="checkbox"/> No
Excavation Construction Work Dates:			<input type="checkbox"/> Yes <input type="checkbox"/> No
Foundation Construction Work Dates:			<input type="checkbox"/> Yes <input type="checkbox"/> No
Superstructure Construction Work Dates:			<input type="checkbox"/> Yes <input type="checkbox"/> No
Finishing Construction Work Dates:			<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Other:</b>			<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Other:</b>			<input type="checkbox"/> Yes <input type="checkbox"/> No

## CONSTRUCTION DEVICE IMPACT CONTROL

Indicate equipment and devices that will generate noise, vibration, glare, or impact traffic during construction activities, as well as local or site-wide control measures.

Work Activity / Operation	List of Equipment Used	Describe Impact Control Devices / Mitigation Approach	Temporary?	Permanent?
Demolition			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Excavation			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Foundations			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Superstructures			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Finishing			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other: Click to enter text.			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Other: Click to enter text.			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

## LOCATION OF MITIGATION MEASURES

Attach a map or maps highlighting the location of mitigation measures at different stages of the construction process.

## MONITORING AND CORRECTIVE ACTION

Describe the contractor's procedures for monitoring construction impacts (noise, vibration, glare, traffic congestion impacts) according to local policies, noise and vibration standards and acceptable levels or tolerances, as well as any staff training requirements.

Describe the contractor's procedure for implementing a corrective action due to non-compliant construction impacts.

Describe the contractor's procedure to modify the construction impact control plan if methods are found ineffective / insufficient or when modifications are necessary.

Describe the contractor's procedure for inspection and maintenance of mitigation measures.

**APPENDIX G-4**  
**ENVIRONMENTAL TRAINING**

City of Tacoma

Project Name

Project Number

**[Contractor Name] Environmental Training Plan  
Greenroads Voluntary Credit CA-1**

**1. Qualifications and Training.**

The following individuals hold certification relating to environmentally sensitive features of the project or have been trained prior to the start of construction for specific aspects of the project. [This shall include all relevant contractors and subcontractors. The information in the table is provided as an example. Add/Remove as necessary.]

Job Type	Type of Certification or Training Received	Description of Responsibility, Goals and Objectives	Training Date
Contractor Superintendent			
Paving Contractor			
Erosion Control Specialist			





City of Tacoma  
Project Name  
Project Number

## 2. Training Efforts

The following training sessions were given regarding features of this project. *[This shall include all relevant contractors and subcontractors. The types of training provided in the table must stay per Greenroads requirements. If a type of training is not applicable, answer No in Column 3. Additional elements may be added at the end.]*

Date	Type of Training	Is Training Applicable to Project? (Y/N)	Related Project Elements Warranting Training	Means of Training	Topics Covered During Training	Target Audience	Number of Attendees
	Permit Conditions, Performance Standards, Environmental Commitments and Environmental Regulations related to the project						
	Overall importance of environmental issues						
	Identifying work activities that present the greatest risk for compliance						
	Required Environmental Qualifications and Certifications						
	Environmental Records Management						
	Environmental compliance monitoring and reporting procedures						
	Unanticipated historic resource or archaeological discoveries						
	Environmental notification triggers and emergency response procedures						



City of Tacoma

*Project Name*

*Project Number*

Date	Type of Training	Is Training Applicable to Project? (Y/N)	Related Project Elements Warranting Training	Means of Training	Topics Covered During Training	Target Audience	Number of Attendees
	Oil spill prevention and response procedures						
	Construction stormwater management (including monitoring sites and monitoring and reporting procedures)						
	Erosion and sediment control procedures						
	In-water work						
	Reduction of air pollution						
	Management of known or suspected contamination						
	Waste Management and recycling						
	Hazardous materials management						
	Management of noise impacts						
	Littering and good housekeeping						
	Plan for training subcontractors and field personnel not immediately involved at project start or planning.						



## Terms Used in Greenroads®

The Greenroads Rating System includes several performance measures for sustainable construction practices. In order for accurate measurements to be reported for participating Projects, Greenroads defines certain terms to allow for consistent materials accounting across all types and sizes of Projects. *Note that definitions required for preparing Greenroads credits may not match those present in other terms and conditions of the construction contract.*

**Basic material (or product).** A basic material or product is one that can no longer be broken down without chemical means.

**Composite material.** A material that is made of multiple basic component materials or products. Common composite materials are asphalt and concrete pavements, which are made of one or more basic materials: binder components, aggregate components, and additive materials.

**Waste material.** *Measured by weight or volume.* Any material that leaves the site and does not come back. Waste material consists of landfill material, regulated or hazardous waste materials, and diverted materials. Waste includes municipal solid waste from consumer products used onsite.

**Landfill material.** *Measured by weight or volume.* Any material that leaves the site and does not come back and is delivered to and deposited into a landfill facility as waste.

**Regulated or hazardous waste materials.** *Measured by weight or volume.* Any waste material requiring special handling procedures regulated by law.

**Diverted material.** *Measured by weight or volume.* Any material that leaves the site and does not come back but does NOT get delivered to and processed by a landfill as waste. Diverted material includes recycling and reclamation practices that occur offsite, and may include salvage practices.

**Recycled or reclaimed content.** *Measured by weight only.* Any material from a pre- or post-consumer waste stream used in the final condition on the job site and crosses into the construction limits for integration into the final as-built condition. Stockpiled materials are not recycled or reclaimed.

**Reused content.** *Measured by volume only.* Any structural material that is located within the boundary that is retained within the boundary during Project's development. Reuse excludes fill materials, native soils, other earthworks, and stockpiling strategies. Reuse include in-place rehabilitation or preservation practices.

**Energy efficient.** Per FAR 2.101, energy efficient means non-combat products and materials meeting the criteria for Energy Star label or is in the upper 25 percent of efficiency for all similar products subject to Federal Energy Management Program (FEMP) criteria.

**Biobased content.** Per FAR 2.101, a commercial or industrial product (other than food or feed) that is composed, in whole or in significant part, of biological products, including renewable domestic agricultural materials (including plant, animal, and marine materials) or forestry materials.

## ASPHALT PAVEMENT MIX DATA

This sheet collects information used in or is related to the following Greenroads Credits:

*PR-2 Energy & Carbon Footprint (REQUIRED for all projects)*

*MD-1 Preservation & Reuse*

*MD-2 Recycled & Recovered Content*

*MD-5 Local Materials*

### Instructions

- 1) Attach a mix design or manufacturer cut sheet for the product/material listed.
- 2) Report the total tonnage for each job mix from the final progress estimate.
- 3) Attach a JWS Summary Report at the end of construction, and a testing submittal.
- 4) If pursuing Credit MD-2 Recycled & Reclaimed Content, be sure that the summary report tracks the total mass of recycled and reclaimed content used.
- 5) Make sure truck tickets exist with the % recycled content and whether the mix is HMA or WMA or other ON the ticket itself, as backup documents.
- 6) Alternately, you may fill out the information below and retain the above information as backup.

### AGGREGATE

Type	Tonnage	Source	Address
Virgin Aggregate			
Reclaimed Asphalt Pavement			
Reclaimed Concrete			
Sand and Gravel			
Fly Ash			
Bottom Ash			
Slag			
Cement			
Glass Cullet			
Crumb Rubber			
Other: Specify			

### BINDERS

Grade	Tonnage	Source	Address

## ASPHALT PAVEMENT MIX DATA

**This sheet collects information used in or is related to the following Greenroads Credits:**

*PR-2 Energy & Carbon Footprint (REQUIRED for all projects)*

### MD-1 Preservation & Reuse

MD-2 Recycled &amp; Recovered Content

### MD-5 Local Materials

### Instructions

- 1) Attach a mix design or manufacturer cut sheet for the product/material listed.
- 2) Report the total tonnage for each job mix from the final progress estimate.
- 3) Attach a JWS Summary Report at the end of construction, and a testing submittal.
- 4) If pursuing Credit MD-2 Recycled & Reclaimed Content, be sure that the summary report tracks the total mass of recycled and reclaimed content used.
- 5) Make sure truck tickets exist with the % recycled content and whether the mix is HMA or WMA or other ON the ticket itself, as backup documents.
- 6) Alternately, you may fill out the information below and retain the above information as backup.

### MIXING TEMPERATURE AT DISCHARGE

Target temperature range @ paver laydown

Manufacturer recommended mixing temp

Manufacturer maximum mixing temp

Contractor's target mixing temp range

Contractor's maximum mixing temp

### Mix Design Optimum Mixing Temp

Mix Design Maximum Mixing Temp

### Recommendation for Production of WMA (by wt Binder)

Contractor's Target Rate for Water or Additive

## ADDITIVES

*Attach MSDS and product cut sheet as applicable*

Type	Volume (gal)	Source	Address	Brand Name/CAS
Anti-Strip				
Fiber				
WMA				
Water				
Other				

## PAVING AND CONSTRUCTION DATA SUBMITTAL

The data provided on this sheet is used to meet a Project Requirement (PR-2 Energy & Carbon Footprint). PR-2 is mandatory for all Greenroads Projects.

Additional credits that use the following information are listed below. It is voluntary to pursue these credits and additional information may be required (see other sheets).

*EW-6 Soil Management*

*CA-5 Workzone Air Emissions*

*CA-3 Quality Process*

*MD-1 Preservation & Reuse*

*CA-4 Workzone Fuel Efficiency*

*MD-6 Long Life Design*

### Hauling Inputs

Truck Capacity (tons)	<hr/>
Truck Fuel Source	<hr/>
One way haul distance to site (miles)	<hr/>
Avg haul speed (mph)	<hr/>
Wait time at plant (mins)	<hr/>
Wait time at site (mins)	<hr/>

### Site Preparation

Is there an existing surface that will be removed?	<hr/>
RAP or RCM Removal (inches)	<hr/>
Soil and/or Unbound Aggregate Removal (inches)	<hr/>
Volume of existing structural material removed (cy)	<hr/>
Soil Compaction Achieved (%)	<hr/>

### Paving Prep/Surface Treatment

Tack/BST Application Area (sy)	<hr/>
Weight of Bitumen for Tack/BST (tons)	<hr/>
Sealcoat (sy)	<hr/>
Weight of Sealcoat (tons)	<hr/>

### HMA Plant Data

Primary Plant Fuel Source	<hr/>
Tons supplied from this plant	<hr/>
Supply rate (ton/hr)	<hr/>

### Achievements (Optional)

NAPA Diamond Level	<hr/>
Other	<hr/>

### Finished Pavement

Total Lane Miles (miles)	<hr/>
Average Width (feet)	<hr/>
Typical Number of Lifts	<hr/>
Wearing Course Depth (inches)	<hr/>
Surface Courses Depth (inches)	<hr/>
Base Course Depth (inches)	<hr/>
Subbase Depth (inches)	<hr/>
Number of Lots for Project	<hr/>
Average % Rice Density for Project	<hr/>
Pavement Smoothness Achieved (in/mi)	<hr/>
Smoothness Index* (IRI, PI, etc.)	<hr/>
AASHTO Smoothness Standard	<hr/>
Reference Contract Specification Section (if any)	<hr/>

*\*IRI is preferred for CA-3 Path 3, Ride Quality*



## Material/Product Tabulation

Project Name	_____	Mark Submittal Status
Project Location	_____	_____ Progress Tabulation
Signed by	_____	_____ Final Tabulation
Date Completed	_____	

**Attachments:** \_\_\_\_\_ Approved mix design \_\_\_\_\_ Product Declaration/Certification  
*Mark all that apply* \_\_\_\_\_ Final JWS Report \_\_\_\_\_ Materials data sheets  
 \_\_\_\_\_ Truck tickets \_\_\_\_\_ Cut-sheet/manufacturer specification

**Instructions**

- 1) Complete this form including each product component or material that your company provided to the Project named above.
- 2) If it is a composite material with multiple basic material components, list information for each basic material on separate lines.
- 3) The information provided on this list for each product should match the quantities and costs provided on the final progress estimate for construction work.
- 4) Components assembled by others should be provided by others, and shown on a separate form. A print-friendly data collection form is available on the next sheet - either format is accepted.
- 5) Provide this completed spreadsheet to your Greenroads Project Manager or a scanned copy of the printed and completed form.

Applicable Credits	PR-2 Energy & Carbon Footprint (REQUIRED)	MD-1 Preservation & Reuse	MD-4 Health Product Declarations
PR-6 Lifecycle Cost Analysis (REQUIRED)		MD-2 Recycled & Recovered Content	MD-5 Local Materials
PR-12 Asset Management Systems (REQUIRED)		MD-3 Environmental Product Declarations	MD-6 Long Life Design

[illegible]



## Product/Material Data Collection Cover Sheet

Greenroads Project Name/Project ID:

Name of Product or Material:

Name of Person Completing Form:

Phone Number or Email:

Manufacturer:

Manufacturer Address:

Referenced Contract Section or Schedule ID for Product or Material:

Award Price Contract for Product:

Final Total Price, including Change Orders:

Next Destination of Product:

*MD-5 Local Materials*

Method of Transportation to Next Destination:

Product Declarations or Supporting Materials Attached to this Form

Is this product a composite material?

*If yes, provide this form **for each basic material component** and attach to your submittal as one package for whole product.*

Did you provide this form to your suppliers for all components?

Total Weight of Product Provided (include units):

Total Weight of Post-Industrial Recycled or Reclaimed Content Only:

Total Weight of Post-Consumer Recycled or Reclaimed Content Only:

Purpose of Recycled or Reclaimed Content:

*MD-2 Recycled & Recovered Content: Option 1*

*MD-2 Recycled & Recovered Content: Option 2*

*MD-2 Recycled & Recovered Content: Option 3*

*MD-2 Recycled & Recovered Content: Option 4*

Description of Recycled or Reclaimed Content



- ☐ To Project Site  
☐ To Next Manufacturer/Supplier

- ☐ Truck  
☐ Rail  
☐ Barge  
☐ Air

- ☐ EPD - Environmental Product Declaration  
☐ HPD - Health Product Declaration  
☐ MSDS - Materials Safety Data Sheet  
☐ CAS - Chemical Abstract Service Number

- ☐ Yes  
☐ No

- ☐ Yes  
☐ No  
☐ N/A


- ☐ Binder Amendment or Substitute  
☐ Aggregate Substitute in Mixture  
☐ Aggregate Substitute in Structural Section  
☐ Other

--

## Optional Product Details (Mark All That Apply)

Product Characteristics for Product Service Code Definitions:

*Product and service reporting per Federal Acquisition Regulation 2.101  
(appropriate for federally funded projects)*

Product Certifications:

*UC-6 Lighting & Controls*

Self-Declared Product Compliance (Not Third-Party):

*UC-4 Energy Efficiency*

*UC-6 Lighting & Controls*

*EW-7 Water Conservation*

Do you require or have an internal product quality control procedure?

*PR-7 Quality Control, CA-3 Quality Process*

*PR-7 Quality Control, CA-3 Quality Process*

Name(s) of Governing Product Quality or Testing Specification (as applicable):

Third-party Manufacturing Plant Certifications:

*CA-1 Environmental Excellence*

*CA-2 Workzone Health & Safety*

*CA-3 Quality Process*

*CA-4 Workzone Fuel Efficiency*

*CA-11 Local Economic Development*

*CA-11 Local Economic Development*

*CA-11 Local Economic Development*

*CA-11 Local Economic Development*

*CA-11 Local Economic Development*

Self-Declared Compliance to Third-Party Standard (Not Certified):

*CA-1 Environmental Excellence*

*CA-2 Workzone Health & Safety*

*CA-3 Quality Process*

*CA-4 Workzone Fuel Efficiency*

Other Comments

☐ Energy-efficient  
☐ Biobased  
☐ Environmentally preferable

☐ IDA Darksky  
☐ GreenSeal  
☐ FSC  
☐ Carbonfree  
☐ Other \_\_\_\_\_

☐ EnergySTAR  
☐ IDA Darksky  
☐ WaterSense

☐ Yes  
☐ Yes, and policy attached  
☐ No

☐ ISO14001  
☐ OSHAS18001  
☐ ISO9001  
☐ ISO5001  
☐ B Corporation  
☐ Small Business  
☐ Women Owned Business  
☐ Veteran Owned Business  
☐ Disadvantaged Business

☐ ISO14001  
☐ OSHAS18001  
☐ ISO9001  
☐ ISO5001

**APPENDIX G-5**  
**WORKZONE WATER USE**

City of Tacoma

Project Name

Project Number



*[The following worksheet is provided for calculation of the water content in all concrete used on the project. The information provided is for use as an example only; the Contractor shall verify all quantities and costs.]*

Concrete Water Content Worksheet:

Sidewalk: 150 CY concrete

Curb/Gutter/Foundations: 145 CY concrete

Total Concrete: 295 CY

Per Cl. 3000 Mix Design, 4.01CF water per 27.13 CF concrete – approx 14.8% water

*295CY of concrete \* 14.8% Water = 43.66 CY of water*

$$43.66\text{CY} \times \frac{27\text{ CF}}{1\text{ CY}} \times \frac{7.481\text{ GAL}}{1\text{ CF}} = 8,820\text{ GAL water}$$

Tacoma Water rate = \$1.80/CCF (<http://www.mytpu.org/customer-service/rates/water-rates/water-rates-ordinance.htm>)

Approximate Cost for Water used in the Concrete:

$$8,820\text{ GAL} \times \frac{1\text{ CF}}{7.481\text{ GAL}} \times \frac{1\text{ CCF}}{100\text{ CF}} \times \frac{\$1.80}{1\text{ CCF}} = \$21.22$$

City of Tacoma  
Project Name  
Project Number



## Water Use Tracking Greenroads Voluntary Credit CA-6

*[The following worksheet is provided as an example of how to fill out the log. The information provided is for use as an example only; the Contractor shall verify all quantities and costs.]*

Date	Quantity	Source Location	Potable (Y/N)	Construction Activity	Quantity for each activity	Measurement Method	Disposal Method	Permit Information	Cost of Water
2/3/2012	500 gal	Hydrant	Y	HMA Pavement Compaction	5x75 gal drum 5x25 gal drum	Filled roller drum of known volume	Storm Drain, Evaporation	Contractor had city-wide hydrant permit \$130 per month	No per-unit cost for water. 6-months of hydrant permit: \$780
3/9/2012	500 gal	Hydrant	Y	Porous Asphalt Pavement Compaction	5x75 gal drum 5x25 gal drum	Filled roller drum of known volume	Storm Drain, Evaporation	Contractor had city-wide hydrant permit \$130 per month	
3/23/2012	3,000 gal	Truck	N	Testing of Rain Garden	3,000 gal truck	3000 gal truck	Rain garden	None	None; COT truck was used at no charge to the project
3/23/2012	3,000 gal	Hydrant	Y	Testing of Rain Garden	3,000 gal truck	Refilled 3,000 gal truck on site via hydrant	Rain garden	None	None; COT truck was used at no charge to the project
November 2011 – March 2012	8,820 gal	Concrete Plant	Y	Water in the concrete	Includes all on-site concrete, approx 295 CY	Meter at concrete plant	Storage	None	\$21.22

**APPENDIX G-6**  
**MISC. GREEN ROADS FORMS**

# Instructions to Suppliers

The transportation construction project that you are supporting with your products is pursuing Greenroads® Certification. Specific information about your product is required from you in order for us to accurately document the project and report the achievement and performance data for certain credits we want to earn. Thank you for being a part of this Greenroads Project.

## Definitions

- **Waste material.** Any material that leaves the site and does not come back. Waste material consists of landfill material, regulated or hazardous materials, and diverted materials. Waste includes municipal solid waste from consumer products used onsite.
- **Landfill material.** Any material that leaves the site and does not come back and is delivered to and deposited into a landfill facility as waste.
- **Diverted material.** Any material that leaves the site and does not come back but does not get delivered to and processed by a landfill as waste, including recycling and reclamation practices.
- **Regulated or hazardous materials.** Any material that is regulated as by RCRA.
- **Recycled content.** Any material that is pre- or post-consumer waste product that is used in the final condition on the job site.
- **Reused content.** Any structural material that is located within the boundary. Reused content excludes fill materials, native soils and other earthworks.

## Project Goals and Requirements

The Project Team is pursuing the following credits that rely on accurate and representative product data. Credits marked with a \* have a spreadsheet template available for tracking purposes. Credits marked with a \*\* should match quantities and costs directly from the final progress estimate.

Required Submittal	Optional Submittal	
<input checked="" type="checkbox"/>		PR-7 Quality Control
<input checked="" type="checkbox"/>		PR-8 Pollution Prevention
<input checked="" type="checkbox"/>		PR-9 Waste Management*
<input checked="" type="checkbox"/>		PR-10 Noise & Glare Control
<input checked="" type="checkbox"/>	<input type="checkbox"/>	MD-2 Recycled Content**
<input type="checkbox"/>	<input type="checkbox"/>	MD-3 Environmental Product Declaration
<input type="checkbox"/>	<input type="checkbox"/>	MD-4 Health Product Declaration
<input checked="" type="checkbox"/>	<input type="checkbox"/>	MD-5 Regional Materials**
<input type="checkbox"/>	<input type="checkbox"/>	CA-3 Quality Process
<input type="checkbox"/>	<input type="checkbox"/>	CA-4 Equipment Fuel Efficiency*
<input type="checkbox"/>	<input type="checkbox"/>	CA-5 Workzone Air Emissions*
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CA-6 Workzone Water Use*
<input type="checkbox"/>	<input type="checkbox"/>	AL-7 Noise & Glare Reduction

# Product Data Cover Sheet

Greenroads Project Name: [Click or tap here to enter text.](#)

Product Provider Name: [Click or tap here to enter text.](#)

Product Provider Address: [Click or tap here to enter text.](#)

Name of product or material: [Click or tap here to enter text.](#)

Intended end use on the Project, and final location: [Click or tap here to enter text.](#)

Referenced Contract Section or Schedule for Product or Material: [Click or tap here to enter text.](#)

Governing Product Quality or Testing Specifications: [Click or tap here to enter text.](#)

Is this product a composite material (made up of other materials or components)? ☐ Yes ☐ No

*If yes, list names of additional suppliers that provided the materials or components included in this product or material on a separate sheet. Then, provide additional copies of this form to these suppliers and attach to your submittal as a full package.*

Did you provide this form to your suppliers? ☐ Yes ☐ No ☐ N/A

Do you require or have an internal product quality control procedure? ☐ Yes ☐ No

## Submittal Attachments

Mark if the following are attached to your submittal

Required?	Attached?	Attachment
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Approved mix design(s)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Waste summary report for the project
<input checked="" type="checkbox"/>	<input type="checkbox"/>	JWS inventory output
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Job summary report of mix ticket records with inventory components
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Receipt of purchased product
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sample truck ticket only
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Summary report of truck tickets
<input checked="" type="checkbox"/>	<input type="checkbox"/>	All truck tickets
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Environmental Product Declaration (EPD)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	MSDS for product
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Health Product Declaration (HPD)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	List of additional suppliers
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Small or disadvantaged business certification
<input checked="" type="checkbox"/>	<input type="checkbox"/>	On-road equipment list (make, model, year)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Non-road equipment list (make, model, year)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fuel purchase receipts



**APPENDIX I**  
**INSURANCE REQUIREMENTS**



The Contractor (Contractor) shall obtain and maintain the minimum insurance set forth below. By requiring such minimum insurance, the City of Tacoma (City) shall not be deemed or construed to have assessed the risk that may be applicable to Contractor under this Contract. Contractor shall assess its own risks and, if it deems appropriate and /or prudent, maintain greater limits and/or broader coverage.

## **1. GENERAL REQUIREMENTS**

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

- 1.1. City reserves the right to approve or reject the insurance provided based upon the insurer, terms and coverage, the Certificate of Insurance, and/or endorsements.
- 1.2. The insurance must be written by companies licensed in the State of Washington pursuant to RCW 48 with an (A-) VII or higher in the A.M. Best's Key Rating Guide [www.ambest.com](http://www.ambest.com).
- 1.3. Contractor shall keep this insurance in force during the entire term of the Contract and for thirty (30) calendar days after completion of all work required by the Contract, unless otherwise provided herein.
- 1.4. Policies of Insurance, *such as Commercial General Liability or Commercial Auto Liability or Marine General Liability or Aircraft General liability or Excess Liability*, required under this Contract that name City as Additional Insured shall:
  - 1.4.1. Be considered primary and non-contributory for all claims.
  - 1.4.2. Contain a "Severability of Insureds", "Separation of Interest", or "Cross Liability" provision and a "Waiver of Subrogation" clause in favor of City.
- 1.5. A Waiver of Subrogation in favor of City for General Liability and Automobile Liability.
- 1.6. Insurance limits shown below may be written with an excess policy that follows the form of an underlying primary liability policy or an excess policy providing the required limit.
- 1.7. Insurance policy(ies) shall be written on an "occurrence" form, except for Professional Liability/Errors and Omissions, Pollution Liability, and Cyber/Privacy and Security.
- 1.8. If coverage is approved and purchased on a "Claims-Made" basis, Contractor warrants continuation of coverage, either through policy renewals or by the purchase of an extended reporting period endorsement as set forth below.
- 1.9. Contractor shall provide City notice of any cancellation or non-renewal of this required insurance within 30 calendar days.
- 1.10. Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by City.
- 1.11. Contractor shall not allow any insurance to be cancelled or lapse during any term of this Contract, otherwise it shall constitute a material breach of the Contract, upon which City may, after giving five (5) business day notice to Contractor to correct the breach, immediately



terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith; with any sums so expended to be repaid to City by Contractor upon demand, or at the sole discretion of City, offset against funds due Contractor from City.

- 1.12. Contractor shall be responsible for all premiums, deductibles and self-insured retentions. All deductibles and self-insured retained limits shall be shown on the Certificates of Insurance. Any deductible or self-insured retained limits in excess of Ten Thousand Dollars (\$10,000) must be approved by City Risk Management Division.
- 1.13. 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).
- 1.14. City reserves the right to review insurance requirements during any term of the Contract and to require that Contractor make reasonable adjustments when the scope of services has been expanded.
- 1.15. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made by City to Contractor.
- 1.16. City, including its officers, elected officials, employees, agents, and authorized volunteers, and any other entities, as required by the Contract, shall be named as additional insured(s) by endorsement for all liability insurance policies set forth below. No specific person or department should be identified as the additional insured.
- 1.17. Contractor shall deliver a Certificate of Insurance for each policy of insurance meeting the requirements set forth herein when Contractor delivers the signed Contract for the work to City. Contractor shall deliver copies of any applicable Additional Insured, Waiver of Subrogation, and primary and non-contributory endorsements. Contract or Permit number and the City Department must be shown on the Certificate of Insurance.
- 1.18. Failure by City to identify a deficiency in the insurance documentation provided by Contractor or failure of City to demand verification of coverage or compliance by Contractor with these insurance requirements shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

## **2. SUBCONTRACTORS**

It is Contractor's responsibility to ensure that each subcontractor obtain and maintain adequate liability insurance coverage. Contractor shall provide evidence of such insurance upon City's request.

## **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 (CGL) Insurance**

The CGL insurance policy must provide limits not less than One Million Dollars (\$1,000,000) each occurrence and Two Million Dollars (\$2,000,000) annual aggregate.

The CGL policy shall be written on an Insurance Services Office (ISO) form CG 00 01 (04-13) or its equivalent. Products and Completed Operations shall be maintained for a period of one year following final acceptance of the work. The CGL policy shall be endorsed to include:



- 3.1.1 A per project aggregate policy limit.
- 3.1.2 Contractual Liability-Railroad using ISO form CG 24 17 (10-01) or equivalent if Contractor is performing work within fifty (50) feet of a City railroad right of way.
- 3.1.3 City as additional insured using ISO form endorsements CG 20 10 (04-13) and CG 20 37 (04-13) or equivalent for ongoing and completed operations, or using ISO form endorsement CG 20 26 (04-13) or equivalent for Facility Use Agreements. Neither additional insured provisions within an insurance policy form, nor blanket additional insured endorsements will be accepted in lieu of the endorsements specified herein.

### 3.2 Commercial Automobile Liability (CAL) Insurance

Contractor shall obtain and keep in force during the term of the Contract, a policy of CAL insurance coverage, providing bodily injury and property damage coverage for owned (if any), non-owned, hired, or leased vehicles.

Contractor must also maintain an MCS 90 endorsement or equivalent and a CA 9948 endorsement or equivalent if "Pollutants" are to be transported. CAL policies must provide limits not less than One Million Dollars (\$1,000,000) each accident for bodily injury and property damage. Must use ISO form CA 0001 or equivalent.

### 3.3 Workers' Compensation

3.3.1 Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington, as well as any other similar coverage required for this work by applicable federal laws of other states.

### 3.4 Employers' Liability (EL) (Stop-Gap) Insurance

Contractor shall maintain EL 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 (UL) Insurance

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

### 3.6 Pollution Liability (PL) Insurance

Contractor shall procure and maintain a PL or Environmental Liability policy providing coverage, including investigation and defense costs, for bodily injury and property damage, including loss of use of damaged property or of property that has been physically damaged or destroyed. Such coverage shall provide both on-site and off-site cleanup costs and cover gradual and sudden pollution, and include in its scope of coverage City damage claims for loss arising out of Contractor's work with limits not less than One Million Dollars (\$1,000,000) each occurrence and Two Million Dollars (\$2,000,000) aggregate. This policy shall include Environmental Resource Damage coverage.

Such insurance may be provided on an "occurrence" or "claims-made" basis. If such coverage is provided on a "claims-made" basis, the following additional conditions must be met:

- 3.6.1 The policy shall include coverage for Hazardous Substance Removal.



- 3.6.2 The policy must contain no retroactive date, or the retroactive date must precede the commencement date of this Contract.
- 3.6.3 The extended reporting period (tail) must be purchased to cover a minimum of six (6) years beyond completion of work.

3.7 Railroad Protective Liability (RPL) Insurance

Contractor shall procure and maintain RPL insurance during the term of the Contract if Contractor's work will involve working on, above, under or being within fifty (50) feet of City railroad right of ways. The RPL insurance shall have policy limits of Two Million Dollars (\$2,000,000) per occurrence and Six Million Dollars (\$6,000,000) annual aggregate. Contractor must use an ISO form CG 00 35 (04-13), or equivalent, with City as a named insured (not named as an additional insured). The policy shall include the following: Limited Seepage and Pollution Endorsement and Evacuation Expense Coverage Endorsement.

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. The costs of such necessary and appropriate insurance coverage shall be borne by Contractor.

4. **CONTRACTOR**

As used herein, "Contractor" shall be the Supplier(s) entering a Contract with City, whether designated as a Supplier, Contractor, Vendor, Proposer, Bidder, Respondent, Seller, Merchant, Service Provider, or otherwise.

**APPENDIX P**  
**NPDES PERMIT**

### **Information Regarding Construction Stormwater General Permit**

The City of Tacoma has applied for a Construction Stormwater General Permit for this project. The application (WAR308122) is currently in the public comment process. This process is expected to complete on August 3, 2019. Once the permit is issued the following paperwork will be filled out to transfer the permit to the contractor. The contractor shall then administer the permit requirements as required, during the project.



# Instructions for Transfer of Coverage

## Construction Stormwater General Permit

### Instructions

This form is used to process two types of permit transfers: 1) Complete Transfer, or 2) Partial Transfer. Determine which type of transfer applies to your situation before filling out this form.

**1. Complete Transfer:** The original permittee has sold, or otherwise released control of the entire site to another party.

#### Required Paperwork for Complete Transfer:

- Either the current permittee, or the new permittee(s), must submit a complete and accurate Transfer of Coverage form to Ecology for each new party. The form must be signed by the current permittee **and** the new permittee.

**2. Partial Transfer:** The original permittee retains control over some portion of the site after selling or releasing control over a portion of the site.

#### Required Paperwork for Partial Transfer

- Either the current permittee or the new permittee(s) must submit a complete and accurate Transfer of Coverage Form for each new operator to Ecology. The form must be signed by the current permittee and the new permittee.
- For partial transfers, once all transfers are submitted, the original permittee should submit the Notice of Termination only if the portion(s) they still own or control have undergone final stabilization and meet the criteria for termination.

#### For Your Information

- When this form is 1) completed, 2) signed by the current and new permittee, and 3) submitted to Ecology, permit transfers are effective on the date specified at the top of page 1 (unless Ecology notifies the current permittee and new permittee of its intention to revoke coverage under the General Permit or if Ecology sends notice that the application is incomplete). If no date for the transfer of coverage is specified, Ecology will use the date of the last signature.
- The new permittee should keep a copy of the signed Transfer of Coverage form (which serves as proof of permit coverage) until Ecology sends documentation in the mail.
- Following the transfer, the new permittee must either: (1) use the Stormwater Pollution Prevention Plan (SWPPP) developed by the original operator, and modified as necessary, or (2) develop and use a new SWPPP that meets the requirements of the Construction Stormwater General Permit.
- For projects for which the original permittee has completed a Proposed New Discharge to an Impaired Waterbody Form (ECY 070-399), or for projects that are operating on sites with soil or groundwater contamination: Upon completion of the Transfer of Coverage form, the new permittee will adopt any special provisions made to protect water quality for sites that have existing contamination or that discharge to an impaired waterbody.

*To request ADA accommodation including materials in a format for the visually impaired, call the Water Quality Program at 360-407-6600 or visit <https://ecology.wa.gov/accessibility>. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call 877-833-6341.*



*This page is intentionally left blank*



# Transfer of Coverage

Permit # WAR\_\_\_\_\_

## Construction Stormwater General Permit

**This form transfers permit coverage for all, or a portion of a site to one or more new operators.**

Type of permit transfer (check one): ☐ Partial transfer (complete the Partial Transfer acreage below) ☐ Complete transfer

Specific date that permit responsibility, coverage, and liability is transferred to new operator: \_\_\_\_\_

*\*If no date is indicated Ecology will determine the date of transfer.*

Please see instructions for details on type of transfer.

**For PARTIAL TRANSFERS indicate the acreage remaining under your operational control:**

- List **total size of project/site** remaining under your operational control following the **partial transfer**: \_\_\_\_\_ acres.
- List **total area of soil disturbance** remaining under your operational control following the **partial transfer**: \_\_\_\_\_ acres.
- Submitting this form meets the requirement to submit an updated NOI (General Permit Condition G9)

### Current Operator/Permittee Information

Current Operator/Permittee Name:		Company:		
Business Phone:	Ext:	Mailing Address:		
Cell Phone:	Fax (optional):			
Email:		City:	State:	Zip+4:
Signature* (see signatory requirements in Section VIII):		Title:		
		Date:		

### New Operator/Permittee Information

(the remainder of this form applies to the **new** Operator/Permittee)

<b>I. New Operator/Permittee</b> (Party with operational control over plans and specifications or day-to-day operational control of activities which ensure compliance with Stormwater Pollution Prevention Plan (SWPPP) and permit conditions. Ecology will send correspondence and permit fee invoices to the permittee on record.)				
Name:		Company:		
Business Phone:	Ext:	Unified Business Identifier (UBI): (UBI is a nine-digit number used to identify a business entity. Write "none" if you do not have a UBI number.)		
Cell Phone (Optional):	Fax (Optional):	E-mail:		
Mailing Address:		City:	State:	Zip + 4:
<b>II. Property Owner</b> (The party listed on the County Assessor's records as owner and taxpayer of the parcel[s] for which permit coverage is requested. Ecology will <b>not</b> send correspondence and permit fee invoices to the Property Owner. The Property Owner information will be used for emergency contact purposes.)				
Name:		Company:		
Business Phone:	Ext:	Unified Business Identifier (UBI): (UBI is a nine-digit number used to identify a business entity. Write "none" if you do not have a UBI number.)		
Cell Phone (Optional):	Fax (Optional):	E-mail:		
Mailing Address:		City:	State:	Zip + 4:

**III. On-Site Contact Person(s)** (Typically the Certified Erosion and Sediment Control Lead or Operator/Permittee)

<b>Name:</b>		<b>Company:</b>		
<b>Business Phone:</b>	<b>Ext:</b>	<b>Mailing Address:</b>		
<b>Cell Phone:</b>	<b>Fax(Optional):</b>	<b>City:</b>	<b>State:</b>	<b>Zip+4:</b>
<b>Email:</b>				

**IV. Site/Project Information**

<b>Site or Project Name</b>		<b>Site Acreage</b> Total size of your site/project (that <b>you</b> own/control): _____ acres. (Note: 1 acre = 43,560 sq. ft.)  Total area of soil disturbance for your site/project over the life of the project: _____ acres. Include grading, equipment staging, excavation, borrow pit, material storage areas, dump areas, haul roads, side-cast areas, off-site construction support areas, and all other soil disturbance acreage associated with the project. (Note: 1 acre = 43,560 sq. ft.)
<b>Street Address or Location Description</b> (If the site lacks a street address, list its specific location. For example, Intersection of Highway 61 and 34.)  _____  <b>Parcel ID#:</b> _____ (Optional)  <b>Type of Construction Activity</b> (check all that apply): <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Highway or Road (city ,county, state) <input type="checkbox"/> Utilities (specify): _____ <input type="checkbox"/> Other (specify): _____		
<b>City (or nearest city):</b>	<b>Zip Code:</b>	<b>Estimated project start-up date</b> (mm/dd/yy):
<b>County:</b>		<b>Estimated project completion date</b> (mm/dd/yy):
Record the latitude and longitude of the <i>main entrance</i> to the site or the approximate center of site.  Latitude: _____ °N                      Longitude: _____ °W		

**V. Existing Site Conditions**

1. Are you aware of contaminated soils present on the site? ☐ Yes ☐ No
  2. Are you aware of groundwater contamination located within the site boundary? ☐ Yes ☐ No
  3. If you answered yes to questions 1 or 2, will any contaminated soils be disturbed or will any contaminated groundwater be discharged due to the proposed construction activity? ☐ Yes ☐ No
- ("Contaminated" and "contamination" here mean containing any hazardous substance (as defined in WAC 173-340-200) that does not occur naturally or occurs at greater than natural background levels.)
- If you answered yes to Question 3, please provide detailed information with the NOI (as known and readily available) on the natures and extent of the contamination (concentrations, locations, and depth), as well as pollution prevention and/or treatment Best Management Practices (BMPs) proposed to control the discharge of soil and/or groundwater contaminants in stormwater. This should include information that would be included in related portions of the Stormwater Pollution Prevention Plan (SWPPP) that describe how contaminated and potentially contaminated construction stormwater and dewatering water will be managed.

## VI. WQWebDMR (Electronic Discharge Monitoring Reporting)

You must submit monthly discharge monitoring reports using Ecology's WQWebDMR system. To sign up for WQWebDMR, or to register a new site, go to <https://www.ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance>. If you are unable to submit your DMRs electronically, you may contact Ecology to request a waiver. Ecology will generally only grant waiver requests to those permittees without internet access. Only a permittee or representative, designated in writing, may request access to or a waiver from WQWebDMR. To have the ability to use the system immediately, **you must submit the Electronic Signature Agreement with your transfer of coverage form**. If you have questions on this process, contact Ecology's WQWebDMR staff at [WebDMRPortal@ecy.wa.gov](mailto:WebDMRPortal@ecy.wa.gov) or 800/633-6193 or 360-407-7097 (local). Note: DMRs are optional for permitted sites under 1 acre that do not discharge to impaired waterbodies.

## VII. Discharge/Receiving Water Information

Indicate whether your site's stormwater and/or dewatering water could enter surface waters, ***directly and/or indirectly***.

☐ Water will discharge directly or indirectly (through a storm drain system or roadside ditch) into one or more surface waterbodies (wetlands, creeks, lakes, and all other surface waters and water courses).

If your discharge is to a storm sewer system, provide the name of the operator of the storm sewer system:  
(e.g., City of Tacoma): \_\_\_\_\_

☐ Water will discharge to ground with 100% infiltration, with no potential to reach surface waters under any conditions.

If your project includes dewatering, you **must** include dewatering plans and discharge locations in your site Stormwater Pollution Prevention Plan.

### Location of Outfall into Surface Waterbody

Enter the outfall identifier code, waterbody name, and latitude/longitude of the point(s) where the site has the potential to discharge into a waterbody (the outfall). Enter all locations. **See illustration of Surface Waterbody Outfall locations at the end of this form.**

- Include the names and locations of both direct and indirect discharges to surface waterbodies, even if the risk of discharge is low or limited to periods of extreme weather. **Attach a separate list if necessary.**
- Give each point a unique 1-4 digit alpha numeric code. This code will be used for identifying these points in WQWebDMR.
- Some large construction projects (for example, subdivisions, roads, or pipelines) may discharge into several waterbodies.
- If the creek or tributary is unnamed, use a format such as "unnamed tributary to Deschutes River."
- If the site discharges to a stormwater conveyance system that in turn flows to a surface waterbody, include the surface waterbody name and location.

Outfall Identifier Code. These cannot be symbols. (Maximum of 4 characters).				Surface Waterbody Name at the Outfall	Latitude Decimal Degrees	Longitude Decimal Degrees
Example: 001A				Example: Puget Sound	47.5289247° N	-122.3123550° W
					° N	° W
					° N	° W
					° N	° W

If your site discharges to a waterbody that is on the impaired waterbodies list (e.g., 303[d] list) for turbidity, fine sediment, high pH, or phosphorus, Ecology will require additional documentation before issuing permit coverage and these sites will be subject to additional sampling and numeric effluent limits (per Permit Condition S8). Ecology will notify you if any additional sampling requirements apply. Information on impaired waterbodies is available online at: <https://www.ecology.wa.gov/Water-Shorelines/Water-quality/Water-improvement/Assessment-of-state-waters-303d>.

**Before signing, please use the following checklist to ensure this form is complete:**

- ☐ All spaces on this form have been completed. (Attach additional sheets if necessary)
- ☐ The transfer form has been signed by both the current permittee (see Page 1) **and** the new permittee (see Section VIII below).
- ☐ The date permit responsibility was transferred is specified. (See Page 1)
- ☐ New Operator/Permittee: Before you submit this form to Ecology, please retain a copy for your records – this will serve as proof of permit coverage until documentation arrives from Ecology.
- ☐ For partial transfers: If the original permittee no longer owns or controls any portions of the site that meet the criteria for termination, the original permittee must submit a Notice of Termination (NOT) to terminate permit coverage. See the CSWGP website for a link to the NOT form: [www.ecology.wa.gov/constructionstormwaterpermit](http://www.ecology.wa.gov/constructionstormwaterpermit).
- ☐ For sites with contaminated soils/groundwater or a new discharger to an impaired waterbody: Any special provisions to protect water quality put in place at the time of initial coverage have been reviewed and adopted by the new permittee.

Administrative Order Docket No. \_\_\_\_\_

### VIII. Certification of New Permittee

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

\_\_\_\_\_  
Printed/Typed Name

\_\_\_\_\_  
Company (operator/permittee only)

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature of New Operator/Permittee

\_\_\_\_\_  
Date

**Signature of Operator/Permittee requirements:**

- A. For a corporation: By a responsible corporate officer.
- B. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively.
- C. For a municipality, state, federal, or other public facility: By either a principal executive officer or ranking elected official.

Please sign and return this **ORIGINAL** document to the following address:

Department of Ecology – Construction Stormwater  
PO Box 47696  
Olympia, WA 98504-7696

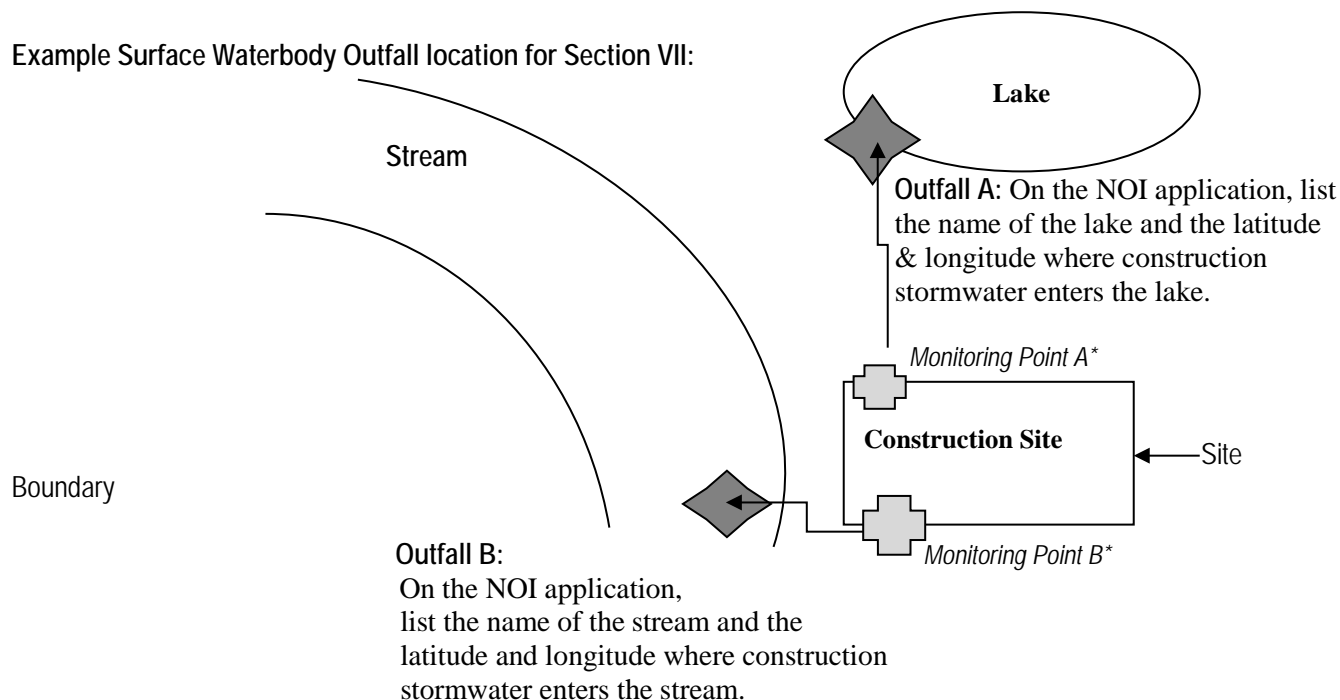
**If you have questions about this form, contact the following Ecology staff:**

Location	Contact Name	Phone	E-mail
City of Seattle, and Kitsap, Pierce, and Thurston counties	Josh Klimek	360-407-7451	<a href="mailto:josh.klimek@ecy.wa.gov">josh.klimek@ecy.wa.gov</a>
Island, King, and San Juan counties	RaChelle Stane	360-407-6556	<a href="mailto:rachelle.stane@ecy.wa.gov">rachelle.stane@ecy.wa.gov</a>
Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Skagit, Snohomish, Spokane, Stevens, Walla, Whatcom, and Whitman counties.	Shawn Hopkins	360-407-6442	<a href="mailto:shawn.hopkins@ecy.wa.gov">shawn.hopkins@ecy.wa.gov</a>
Benton, Chelan, Clallam, Clark, Cowlitz, Douglas, Grays Harbor, Jefferson, Kittitas, Klickitat, Lewis, Mason, Okanogan, Pacific, Skamania, Wahkiakum, and Yakima counties.	Joyce Smith	360-407-6858	<a href="mailto:joyce.smith@ecy.wa.gov">joyce.smith@ecy.wa.gov</a>

You must submit monthly discharge monitoring reports using Ecology's WQWebDMR system. To sign up for WQWebDMR, or to register a new site, go to [www.ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance](http://www.ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance). If you are unable to submit your DMRs electronically, you may contact Ecology to request a waiver. Ecology will generally only grant waiver requests to those permittees without internet access. Only a permittee or representative, designated in writing, may request access to or a waiver from WQWebDMR. To have the ability to use the system immediately, **you must submit the Electronic Signature Agreement with your application.**

If you have questions on this process, contact Ecology's WQWebDMR staff at [WQWebPortal@ecy.wa.gov](mailto:WQWebPortal@ecy.wa.gov) or 800-633-6193 or 360-407-7097 (local).

**Example Surface Waterbody Outfall location for Section VII:**



\*Note: The monitoring points are for illustration only and are not required on this Notice of Intent application form. Monitoring point information will be entered on the monthly discharge monitoring report as required for active permits.

*To request ADA accommodation including materials in a format for the visually impaired, call the Water Quality Program at 360-407-6600 or visit <https://ecology.wa.gov/accessibility>. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TYY at 877-833-6341.*

**APPENDIX R**  
**TACOMA RAIL RIGHT OF ENTRY FORM**

## RIGHT OF ENTRY AGREEMENT APPLICATION

Date: \_\_\_\_\_

*The following specifications for Construction within the Right of Way are hereby submitted to the City of Tacoma for their approval to cross the City of Tacoma's Railroad Rights of Way, as shown on the enclosed sketch.*

Legal name of company or municipality applying: \_\_\_\_\_

Applicant's Tax ID/SSN: \_\_\_\_\_

State in which incorporated: \_\_\_\_\_

If not incorporated, correct name of owners and all partners: \_\_\_\_\_

Mailing address: \_\_\_\_\_

Contact person and telephone number: \_\_\_\_\_

After-hours emergency contact name/telephone number: \_\_\_\_\_

Location: \_\_\_\_ 1/4, Sec: \_\_\_\_ T: \_\_\_\_ R: \_\_\_\_ MP: \_\_\_\_ to \_\_\_\_

Station: \_\_\_\_\_

Name of nearest town: \_\_\_\_\_

Name of nearest road crossing the Railroad: \_\_\_\_\_

Is it within the limits of a public road/street? \_\_\_\_\_

If yes, distance from center line of street: \_\_\_\_\_

Width of road or street: \_\_\_\_\_

Start and End date of Use: \_\_\_\_\_

Type of Use: \_\_\_\_\_

Length of Right of Way Use: \_\_\_\_\_

Width of Right of Way use: \_\_\_\_\_

List any Equipment on ROW: \_\_\_\_\_

**SUBMIT A DRAWING PINPOINTING THE LOCATION AND DIMENSIONS  
OF CONSTRUCTION WITHIN THE RIGHT OF WAY INCLUDING  
PROPOSED CONSTRUCTION DRAWINGS AND  
\$1,500.00 ADMINISTRATIVE FEE.**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Telephone number and email address: \_\_\_\_\_

Return to:

Tacoma Public Utilities  
Real Property Services  
3628 South 35<sup>th</sup> St.  
Tacoma, WA 98409



**APPENDIX T**  
**ART INLAY**



**PART IV**

**CITY OF TACOMA**

**SMALL BUSINESS ENTERPRISE PROGRAM**

# SBE GOAL UTILIZATION FORM

## **SMALL BUSINESS ENTERPRISE REQUIREMENTS & PROCEDURES:**

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

City of Tacoma – SBE Utilization Form to receive SBE usage  
City of Tacoma – Prime Contractor's Pre-Work Form

## **IMPORTANT NOTE:**

It is the bidder's responsibility to insure that the SBE subcontractor(s) listed on the SBE Utilization Form are currently certified by the City of Tacoma at the time of bid opening. This may be verified by contacting the SBE Program Office at 253-591-5224 or 253-573-2435 between 8 AM and 5 PM, Monday through Friday. This form must have clear expression of SBE participation your company will use on this project. Ordinance 1.07, passed by the City Council on December 15, 2009, establishes the overall SBE goal of 22%, except where modified through appropriate procedures. Please refer to the City of Tacoma SBE Provisions included elsewhere in these Special Provisions.

## **SBE GOAL: 22%**

The following bid items were used to calculate the above SBE goal:

Roadway Surveying	Illumination System
Temporary Traffic Control	Signage
Clearing and Grubbing	Rectangular Rapid Flashing System
Removal of Structure and Obstruction	School Zone Beacon
Roadway Excavation	Interconnect system
Remove Existing Pavement	Street Cleaning
Catch Basin Type 1 and 2	Disposal of Waste Materials
Landscaping	Landscape Restoration
Traffic Signal System	

This is NOT an all-inclusive list. Bidders are free to identify any additional bid items that you deem appropriate to attain the above **22% SBE goal**. A list of SBE companies is available on the following City of Tacoma web site address:

[www.cityoftacoma.org](http://www.cityoftacoma.org)

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

CCD/SBE: PW19-0213F  
Date of Record: 6.21.2019



City of Tacoma  
Community & Economic Development  
Office of Small Business Enterprise  
747 Market Street, Room 808  
Tacoma, WA 98402  
253-594-7933 or 253-591-5224

## PRIME CONTRACTOR'S PRE-WORK FORM

Company Name

Telephone

Address/City/State/Zip Code

Specification Number

Specification Title

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

### CONTRACTOR'S PROJECTED WORK FORCE - THIS PROJECT

Superintendent												
Foreman												
Operators												
Laborers												
Apprentice												
Trainee												
TOTALS												

Type or Print Name of Responsible Officer / Title

Signature of Responsible Officer

Date

## **INSTRUCTIONS FOR COMPLETING PRIME CONTRACTOR'S PRE-WORK FORM**

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

1. "Heading" the company name and address should reflect the prime contractor actually doing business with the City of Tacoma. If this address is different from that of the Equal Employment Opportunity Officer that administers the EEO programs of the company, the Equal Employment Opportunity Officer's address should be noted in the "Comments" section at the bottom of the form. "Telephone" should contain the area code, telephone number and extension (if any) for the Equal Employment Officer or the responsible official.
2. "Job Categories" at the extreme left hand column of the form specifying "Job Categories" lists "Officials & Managers." You are to list in addition to Officials & Managers any appropriate job titles such as Sales Workers, Office/Clerical, Professionals, Technical, etc., as they apply to your own company and only as pertains to this specific project.
3. The "M" and "F" headings at the top of each column refer to "Male" and "Female."
4. The "Total Employees" column should list the total number of male employees under "M" and the total female number of female employees under "F" for each job category listed. They should be listed in a similar manner in the "Total" category at the bottom of the form. The "Total Employees" column should include all those employees listed under "Non-Minority" and "Total Minorities." "Non-Minority" should include all employees not listed in the minority columns.
5. "Total Minorities" should include all employees listed under the "Black," "Asian or Pacific Islander" (A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.), "American Indian or Alaskan Native," and "Hispanic" columns. These columns should include only employees who are members of that particular minority group. Designation and definitions of ethnic/national origin status follow the instructions and definitions of the Federal EEO-1 Form of the U. S. Equal Employment Opportunity Commission.
6. "Totals" this line should reflect the total of all lines in each of the above columns.
7. The signature of your company's designated responsible official or similar official responsible for equal employment opportunity must appear in the designated space at the bottom of the form. Please PRINT OR TYPE the person's name on the top line across from the signature. This is required since some signatures are difficult to read.
8. "Comments" this section is to be used as needed for explanations to under utilization rate or lack of turnover, proposed expansion or reduction of staff or any other pertinent information you believe will help clarify or explain the data presented on the form. If you need additional space, please explain on a separate sheet of paper.
9. If you need assistance or have questions regarding the completion of this form, please call the SBE Office at 253-594-7933 or 253-591-5224.



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

- 787 -

## SBE UTILIZATION FORM

This form is to document only the SBE subcontractors or material suppliers that will be awarded a contract. This information will be used in calculating the **EVALUATED BID**. Additional forms may be used if needed.

- Prime contractors are encouraged to solicit bids from SBE approved firms.
- Be sure to include this form with your bid submittal in order to receive SBE credit.
- It is the prime contractor's responsibility to check the certification status of SBE subcontractors prior to the submittal deadline.

Bidder's Name: \_\_\_\_\_

Address: \_\_\_\_\_ City/State/Zip: \_\_\_\_\_

Spec. No. \_\_\_\_\_ Base Bid \* \$ \_\_\_\_\_ Are You a SBE Mentor? \*\* ☐ Yes ☐ No Are you using any SBE firms? ☐ Yes ☐ No

**Complete company names and phone numbers are required to verify your SBE usage.**

a. Company Name and Telephone Number	b. Scope of Work, Services or Supplies/Materials Provided	c. Bid Amount	d. Subcontractor (100%)	e. Material Supplier (20%)	f. Actual SBE Usage Dollar Amount
	Enter Total of Actual SBE Usage Dollar Amount \$ ***				
<b>Block g.</b> Actual SBE Usage as a percent of the Base Bid: _____ %			<b>Block h.</b> Total SBE Usage: _____ %		

By signing and submitting this form the bidder certifies that the SBE firms 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 SBE UTILIZATION FORM

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

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

1. \* Base Bid is the prime contractor's bid, plus any alternates, additives and deductive selected by the City. Also, please refer to Item #9 below.
2. \*\*Note: As a SBE Mentor you can receive up to 50% of the identified SBE goal that may be applied towards your SBE usage. Please check (✓) appropriate field on the SBE Utilization Form.
3. \*\*\* This amount should total all dollar amounts included in Column "f."
4. Column "a" – List all SBE companies that you will be awarding a contract to if you are the successful bidder.
5. Column "b" – List the scope of work or services for each subcontractor **OR** list the materials/supplies provided.
6. Column "c" – The bid amount must be indicated for **all** listed **SBE** subcontractors and material suppliers that you plan on doing business with. This quote is the price that you and the subcontractor have negotiated prior to bid opening.
7. Column "d" – Indicate with a checkmark (✓) if the SBE will serve as a subcontractor.
8. Column "e" – Indicate with a checkmark (✓) if the SBE is a material supplier.
9. Column "f" – Actual SBE Usage Dollar Amount: Multiply the amount in Column "c" by 1.0 if subcontractor (d) is checked (✓) OR by 0.20 if Material Supplier (e) is checked (✓). Insert the total amount in this column.
10. Block "g" – The percent of actual SBE usage calculated on the Base Bid only and does not include any additional credit for being a SBE Mentor. (Divide your Total Actual SBE 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 = SBE usage as a percent of the Base Bid.)
11. Block "h" – Total SBE usage is the percent of "Actual SBE Usage" (Column f) plus up to 50% of **identified** SBE goal as a mentorship credit when applicable.
12. Whether or not you have SBE participation this form **MUST** be submitted with your bid proposal package to receive SBE usage.

It is the prime contractor's responsibility to check the status of SBE subcontractors prior to bid opening. Call the SBE Office at 253-591-5224 or 253-573-2435 for additional information.

**CHAPTER 1.07**  
**SMALL BUSINESS ENTERPRISE**

Sections:

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

**1.07.010 Policy and purpose.**

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

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

**1.07.020 Definitions.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**1.07.030 Discrimination prohibited.**

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

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

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

**1.07.040 Program administration.**

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

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

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

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

**1.07.050 Certification.**

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

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

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

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

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

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

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

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

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

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

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

#### **1.07.060 Program requirements.**

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

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

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

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

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

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

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

#### **1.07.070 Evaluation of submittals.**

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

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

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

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

1. When contract award is based on price. The lowest priced bid submitted by a responsive and responsible bidder will be reviewed to determine if it meets the SBE goal. Such low bid shall be determined to meet the SBE goal if the bidder is a certified SBE.
  - a. If the low bidder meets the SBE goal, the bid shall be presumed the lowest and best responsible bid for contract award.
  - b. If the lowest priced bid does not meet the SBE goal, but the bid of any other responsive and responsible bidder does, and such other bid(s) is or are priced within five percent of the lowest bid, then the following formula shall be applied to each such other bid:

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

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

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

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

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

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

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

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

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

#### **1.07.080 Contract compliance.**

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

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

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

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

#### **1.07.090 Program monitoring.**

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

from City departments/divisions, respondents, and contractors such relevant records, documents, and other information as is reasonably necessary to determine compliance.

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

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

#### **1.07.100 Enforcement.**

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

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

#### **1.07.110 Remedies.**

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

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

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

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

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

#### **1.07.120 Unlawful acts.**

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

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

#### **1.07.130 Severability.**

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

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

#### **1.07.140 Sunset and review of program.**

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

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





**PART V**

**CITY OF TACOMA**

**LOCAL EMPLOYMENT AND APPRENTICESHIP  
TRAINING PROGRAM (LEAP) REGULATIONS FOR  
PUBLIC WORKS CONTRACTS**

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

## LEAP REQUIREMENTS & PROCEDURES:

The LEAP office enforces post-award mandatory requirements. Bidders do not have to submit any information in the bid submittal package to be in compliance with LEAP.

### Post-award Submittals:

- Prime Contractor LEAP Utilization Plan - This form is to be completed and presented at the Pre-Construction Meeting.
- LEAP Employee Verification Form - This form is to be completed for every qualifying LEAP employee.
- LEAP Weekly Payroll Report - This form is to be completed and submitted with each certified payroll.

The forms above, LEAP Program Requirements, community empowerment zone maps, and all related LEAP documents can be accessed on the City of Tacoma LEAP website by navigating to LEAP Forms at the following link: <http://cityoftacoma.org/leap>.

The City of Tacoma's LEAP office enforces two mandatory goals on City projects above certain monetary thresholds.

The Local Employment Utilization Goal requires the Prime Contractor performing a qualifying public works project to ensure that 15 percent of the total labor hours worked on the project are performed by residents of the City of Tacoma or Economically Distressed Areas of the Tacoma Public Utilities Service Area.

The Apprentice Utilization Goal requires the Prime Contractor performing a qualifying public works project to ensure that 15 percent of the total labor hours worked on the project are performed by Apprentices who are residents of the City of Tacoma or Tacoma Public Utilities Service Area. The accompanying LEAP Regulations, forms, and maps are included in these specifications.

\*Exceptions: If the project is located outside of the retail service area of the Tacoma Public Utilities Service Area, then Apprentices may come from the county in which the work is performed.

This project is above \$1 million and is thusly subject to the:

1. 15% Local Employment Utilization Goal
2. 15% Apprentice Utilization Goal

LEAP staff can assist contractors in the recruitment, screening and selection of qualified City of Tacoma residents, Economically Distressed Area residents, and Apprentices. Contractors may obtain further information by contacting the City's LEAP Office at (253) 591-5826. The LEAP Office is located in the Tacoma Municipal Building, 747 Market Street, Room 808, Tacoma, WA 98402.

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

## LEAP

### Document Submittal Schedule

In the attached packet, you will find the LEAP forms that are required to be submitted by the Prime and Sub Contractors.

- ❑ **LEAP Abbreviated Program Requirements:** brief overview of LEAP Program requirements
- ❑ **Prime Contractor *LEAP* Utilization Plan:** to be submitted at the Pre-Construction Meeting  
*(Required by Prime Contractor Only)*
- ❑ **LEAP Employee Verification Form:** to be submitted on an ongoing basis for each qualified LEAP employee
- ❑ **LEAP Weekly Payroll Report:** must be attached and filled out to the front of each certified payroll
- ❑ **Tacoma Public Utilities Service Area Map:** 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 weekly, biweekly or monthly with the LEAP Payroll Report attached as scheduled by the Prime
- ❑ **Statement of Intent to Pay Prevailing Wages:** to be submitted prior to commencing work
- ❑ **Affidavit of Wages Paid:** to be submitted upon completion of each contractor's work
- ❑ **Local Resident/Pierce County (State – Approved) Apprentice Verification Form:** to be submitted on an ongoing basis for each qualified LEAP employee
- ❑ **Document Verification:** provide required information when requested from LEAP Office

Please submit above documents as instructed by the Project Manager.

If you have any questions or request further information, please feel free to contact the City of Tacoma's LEAP Program at (253) 591-5826, Fax (253) 591-5232, or email [carmsstrong@cityoftacoma.org](mailto:carmsstrong@cityoftacoma.org).



City of Tacoma  
Community and Economic Development Department  
LEAP Office  
747 Market Street, Room 808  
Tacoma, WA 98402  
(253) 591-5826  
FAX (253) 591-5232

## **LEAP LOCAL EMPLOYMENT AND APPRENTICESHIP TRAINING PROGRAM ABBREVIATED PROGRAM REQUIREMENTS**

LEAP is a mandatory City of Tacoma program adopted to provide employment opportunities for City of Tacoma residents and residents of Economically Distressed Areas of the Tacoma Public Utilities Service Area. It requires Contractors performing qualifying public works projects or service contracts to ensure that 15 percent of the total labor hours worked on the project are performed by LEAP-Qualified Pierce County apprentices approved by the Washington State Apprenticeship Council (SAC), youth, veterans and/or residents of Tacoma. Compliance may be met through any combination LEAP-Qualified employees. The Prime Contractor shall be solely responsible for meeting the LEAP Utilization Goal requirements.

Prime Contractors may obtain further information by contacting the City of Tacoma's LEAP Program at (253) 591-5826, Fax (253) 591-5232, or e-mail [carmstrong@cityoftacoma.org](mailto:carmstrong@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 808.

### **LEAP PROGRAM REQUIREMENTS:**

1. **LOCAL EMPLOYMENT GOAL:** The Contractor is required to ensure that 15 percent of the total Labor Hours worked on the project are performed by residents of the City of Tacoma or Economically Distressed ZIP Codes for the following projects:

- a) Civil Projects over \$250,000
- b) Building Projects over \$750,000

2. **APPRENTICE GOAL:** The Contractor is required to ensure that 15 percent of the total Labor Hours worked on any project over \$1,000,000 are performed by Apprentices who are residents of the Tacoma Public Utilities Service Area.

3. **SUBCONTRACTOR NOTIFICATION:** Prime Contractors shall notify all Subcontractors of the LEAP Program requirement. Subcontractor labor hours may be utilized towards achievement of the LUG. Owner/Operator hours may be used for the Local Employment Goal.

4. **FAILURE TO MEET LEAP UTILIZATION GOAL:** Contractors shall be assessed an amount for each hour that is not achieved. The amount per hour shall be based on the extent the Contractor met its goal. The amount per hour that shall be assessed shall be as follows:

- 100% achievement                      \$0.00 penalty
- 99% to 90% achievement            \$2.00 penalty
- 89% to 75% achievement            \$3.50 penalty
- 74% to 50% achievement            \$5.00 penalty
- 49% to 1% achievement             \$7.50 penalty
- 0% achievement                        \$10.00 penalty

\*Penalty may be waived in the best interests of the City of Tacoma.

### **LEAP DOCUMENT SUBMITTALS\*\*:**

1. **PRIME CONTRACTOR LEAP UTILIZATION PLAN (PCLUP):** The Contractor is required to provide the *PCLUP* at the **Pre-Construction meeting** showing the goals to be achieved for the project. The Contractor must identify in the *PCLUP* the estimated labor hours to be worked on the project by trade/craft persons.

2. *LEAP EMPLOYEE VERIFICATION FORM*: The Contractor must provide the LEAP Office with a form for every person whom the contractor will claim credit towards meeting the LUG with at least one piece of verifying documentation.
  3. *LEAP WEEKLY PAYROLL REPORT*: The Prime and Subcontractors must complete and attach this form to the front of each weekly certified payroll when submitting to the LEAP Office for review.
  4. *WEEKLY CERTIFIED PAYROLL*: The Prime and Subcontractors must submit weekly Certified Payrolls that include, employee name, address, social security number, craft/trade, class, hours worked on this job, rate of pay, and gross wages paid including benefits for this job.
  5. *L&I STATEMENT OF INTENT TO PAY PREVAILING WAGE FORM*: The LEAP Office shall be provided with a copy for every contractor on the project.
  6. *L&I AFFIDAVIT OF WAGES PAID FORM*: The LEAP Office shall be provided with a copy for every contractor on the project.
- \*\*WITHHOLDING PROGRESS PAYMENTS**: The LEAP Coordinator may withhold progress payments for failure to submit required forms.



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

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# PRIME CONTRACTOR LEAP UTILIZATION PLAN

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

## Part A

<b>Contractor:</b>		<b>Date:</b>
<b>Specification Number:</b>	<b>Contract/Work Order Number(s):</b>	<b>Contract Dollar Amount:</b>
<b>Project Description:</b>		<b>Notes:</b>

## PART B PLANNED LEAP HOURS\*

Trade or Craft	City of Tacoma Resident	Economic Distressed Area Resident	Tacoma Public Utilities Service Area Apprentice Resident	WA State Apprentice *(Contracts outside of TPU Service Area Only)	
	hrs.	hrs.	hrs.	hrs.	
	hrs.	hrs.	hrs.	hrs.	Date
	hrs.	hrs.	hrs.	hrs.	
	hrs.	hrs.	hrs.	hrs.	
	hrs.	hrs.	hrs.	hrs.	
	hrs.	hrs.	hrs.	hrs.	Rejected
	hrs.	hrs.	hrs.	hrs.	
	hrs.	hrs.	hrs.	hrs.	Date
	hrs.	hrs.	hrs.	hrs.	
Totals					
					TOTAL hrs.

## Part C

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

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## General Instructions for completing Prime Contractor LEAP Utilization Plan

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### **Part A**

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

### **Part B**

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

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

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

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

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

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

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

### **Part C**

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





City of Tacoma LEAP Office  
747 Market Street, Room 808  
Tacoma, WA 98402  
(253) 591-5826 fax (253) 591-5232  
www.cityoftacoma.org/leap

## **LEAP EMPLOYEE VERIFICATION FORM**

Contractor/Sub: \_\_\_\_\_ Specification Number: \_\_\_\_\_

Project Description: \_\_\_\_\_

Employee Name: \_\_\_\_\_ Craft: \_\_\_\_\_

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

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 within the geographic boundaries of the City of Tacoma

\_\_\_\_\_ b. Resident within Economically Distressed ZIP Codes of the Tacoma Public Utilities Service Area

\_\_\_\_\_ c. WA State Approved Apprentice living in Tacoma Public Utilities Service Area

\_\_\_\_\_ d. WA State Approved Apprentice \*(Only valid for contracts where 100% of work is performed outside of Pierce County)

Signature of Employee: \_\_\_\_\_ Date: \_\_\_\_\_

Contractor Representative: \_\_\_\_\_ Date: \_\_\_\_\_

## LEAP EMPLOYEE VERIFICATION FORM

*To be Completed by Contractor or Subcontractor*

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

.....

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

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

\_\_\_\_\_ Driver's License with current address

\_\_\_\_\_ Utility Bill/Phone Bill/Cell Bill/Cable Bill with current  
address

\_\_\_\_\_ Copy of current tax form W-4

\_\_\_\_\_ Rental Agreement/Lease (residential)

\_\_\_\_\_ Computer Printout From Other Government Agencies

\_\_\_\_\_ Property Tax Records

\_\_\_\_\_ Apprentice Registration I.D.

\_\_\_\_\_ Food Stamp Award Letter

\_\_\_\_\_ Housing Authority Verification

\_\_\_\_\_ Insurance Policy (Residence/Auto)

\*Any of the above must have a complete physical address verified by the [www.govme.org](http://www.govme.org) website.

No PO Boxes

Contractor Representative:\_\_\_\_\_

Date:\_\_\_\_\_

Title:\_\_\_\_\_



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

## LEAP Weekly Payroll Report

Prime / Subcontractor: \_\_\_\_\_ Union ☐ Non-Union ☐

Specification Number: \_\_\_\_\_ Project: \_\_\_\_\_

Payroll Week Ending Date: \_\_\_\_\_ Payroll Number: \_\_\_\_\_

To the extent possible, Contractors shall recruit Apprentices from multiple trades or crafts. (LEAP Regulations Section III)

Failure to submit this report attached to Weekly Certified Payrolls may result in Progress Payments being withheld.

1) Total Labor hours worked by all employees this payroll period on *this job*: \_\_\_\_\_

2) Total Wages paid *including benefits* to all employees this payroll period on *this job*: \_\_\_\_\_

Please include below LEAP qualified employees that have been verified by the LEAP Office *only*. A LEAP employee is a City of Tacoma resident and/or a Washington State approved apprentice who is a resident of Pierce County.

(Use additional sheets if necessary)

3) LEAP Employee Name	4) Social Security Number	5) Craft	6) Class J / A	7) Type of hours	8) Hours worked (this job)	9) Hourly Rate of pay incl. F/B
						\$
						\$
						\$
						\$
						\$
						\$
						\$
						\$

I, the undersigned, affirm that the information contained herein is true and correct.

\_\_\_\_\_  
Signature of Responsible Officer

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

## Instructions for completing the LEAP Weekly Payroll Report

If no work was performed on this job for this week, write **No Work Performed** on line # 1.

If work was performed on this job for this week, complete the form using the following instructions.

- 1) Enter the number of hours worked on this job by **all** employees
- 2) Enter the total Gross wages paid to **all** employees, (including fringe benefits) for this job
- 3) Enter employee name for **LEAP** qualified employees
- 4) Enter Social Security Number
- 5) Enter Craft as listed on Labor & Industries Intent to Pay Prevailing Wage
  - if this employee worked in more than one craft category, enter 5) through 9) on separate lines
- 6) Enter the employee class, Journeyman (J) or Apprentice (A)
- 7) Enter type of hours (regular (R) , overtime (O), double time (DT), for this employee
  - for each change in type of hours enter 5) through 9) on separate lines
- 8) Enter the hours worked by this employee
- 9) Enter the rate of pay (including fringe benefits) for this employee

---

### Sample

1) Total hours worked on this job by all employees 142

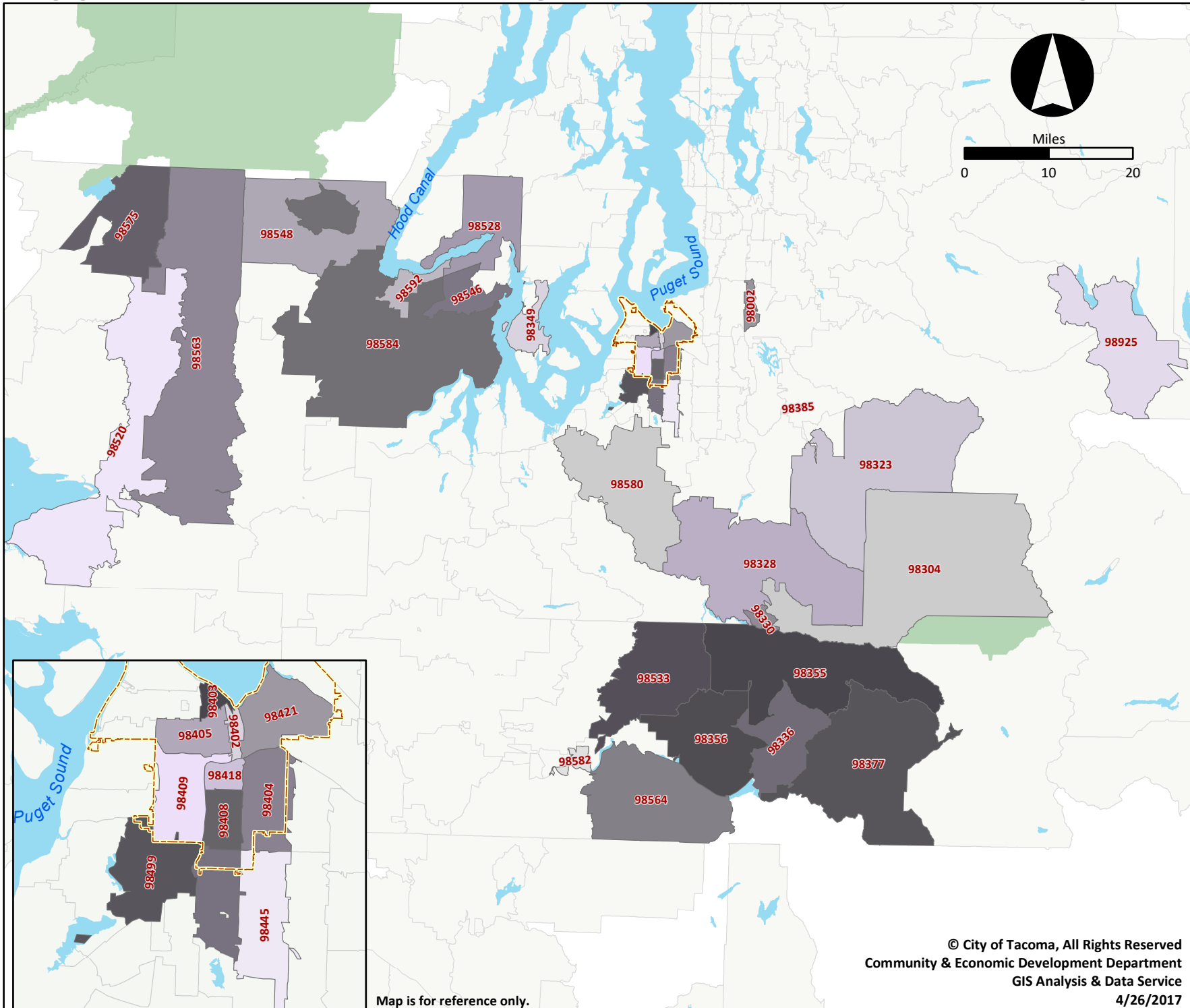
2) Total gross pay for all employees working on this job \$ 5412.91

The following employees have been identified as qualified LEAP employees for the purpose of meeting the LEAP Utilization Goal for this project.

3) Employee Name	4) Social Security Number	5) Craft	6) Class J / A	7) Type of hours	8) Hours worked (this job)	9) Hourly Rate of pay incl. F/B
Joe Smith	123-45-6789	Laborer	J	R	15	\$31.34
		Laborer	J	O	5	\$47.01
Tom Thompson	987-65-4321	Laborer	J	R	8	\$31.34
		Power Equipment Operator	J	R	8	\$37.24
Ken Swanson	654-59-7531	Electrician	A	R	32	\$29.93

# Appendix C: Economically Distressed ZIP Codes Map

- 808 -



City Limits

- 98002
- 98304
- 98323
- 98328
- 98330
- 98336
- 98349
- 98355
- 98356
- 98377
- 98385
- 98520
- 98528
- 98533
- 98546
- 98548
- 98563
- 98564
- 98575
- 98580
- 98582
- 98584
- 98592
- 98925
- 98402
- 98403
- 98408
- 98409
- 98418
- 98421
- 98444
- 98445
- 98499

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Community & Economic Development Department  
GIS Analysis & Data Service  
4/26/2017

Map is for reference only.

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
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	Hoodsport
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

“200% Pov” = People at or below 200% of the federal poverty line. (69<sup>th</sup> percentile)

“Unemployed” = Unemployment rate (45<sup>th</sup> percentile)

“25+ College” = People at or above 25 years old without a college degree. (75<sup>th</sup> percentile)

98001	Auburn
98002	Auburn
98003	Federal Way
98010	Black Diamond
98022	Enumclaw
98023	Federal Way
98030	Kent
98032	Kent
98038	Maple Valley
98042	Kent
98045	North Bend
98051	Ravensdale
98070	Vashon
98092	Auburn
98198	Seattle
98304	Ashford
98321	Buckley
98323	Carbonado
98327	DuPont
98328	Eatonville
98329	Gig Harbor
98330	Elbe
98332	Gig Harbor
98333	Fox Island
98335	Gig Harbor
98336	Glenoma
98338	Graham
98349	Lakebay
98354	Milton
98355	Mineral

98356	Morton
98360	Orting
98371	Puyallup
98372	Puyallup
98373	Puyallup
98374	Puyallup
98375	Puyallup
98377	Randle
98385	South Prairie
98387	Spanaway
98388	Spanaway
98390	Sumner
98391	Bonney
98402	Tacoma
98403	Tacoma
98404	Tacoma
98405	Tacoma
98406	Tacoma
98407	Tacoma
98408	Tacoma
98409	Tacoma
98416	UPS
98418	Tacoma
98421	Tacoma
98422	Tacoma
98424	Tacoma
98430	Camp Murray
98433	Tacoma
98438	McChord
98439	Lakewood

98443	Tacoma
98444	Tacoma
98445	Tacoma
98446	Tacoma
98447	PLU
98465	Tacoma
98466	Tacoma
98467	University Place
98498	Lakewood
98499	Lakewood
98520	Aberdeen
98524	Allyn
98528	Belfair
98533	Cinebar
98546	Grapeview
98548	Hoodspport
98555	Lilliwaup
98563	Montesano
98564	Mossyrock
98575	Quinault
98580	Roy
98582	Salkum
98584	Shelton
98585	Silver Creek
98591	Toledo
98592	Union
98597	Yelm
98925	Easton

Apprentices may come from **any** of the ZIP codes listed under this page. If an apprentice lives in a Priority Hire ZIP code, they may count towards those labor hours as well.  
Journeyman must be from the Priority Hire ZIP codes.

## No Work Performed (NWP) Report

Prime/Sub Contractor: \_\_\_\_\_

Specification Number: \_\_\_\_\_

Project Description: \_\_\_\_\_

Payroll Week Ending Date: \_\_\_\_\_ Payroll Number: \_\_\_\_\_

# NO WORK PERFORMED

I, the undersigned, do hereby certify under penalty of perjury, that the information contained herein is true and correct.

\_\_\_\_\_  
Signature of Responsible Officer

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date



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

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

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

L. "LEAP Coordinator" shall mean the City of Tacoma staff member who administers LEAP.

M. "LEAP Program" or "Program" shall mean the City of Tacoma's Local Employment and Apprenticeship Training Program, as described in this chapter.

N. "LEAP Regulations" or "Regulations" shall mean the rules and practices established in this document.

O. "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.

P. "Priority Hire Resident" shall mean any resident within the Economically Distressed ZIP Codes.

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

R. "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.

S. "Resident of Tacoma" shall mean any person, not defined as a Resident of the Economically Distressed ZIP Codes within the Tacoma Public Utilities Service Area, 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.

T. "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.

U. "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.

V. "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."

W. "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.

X. "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.

Y. 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.

AA. "Tacoma Public Utilities" means the City of Tacoma, Department of Public Utilities.

(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. 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 Good faith efforts. *Repealed by Ord. 27368.***

(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 or Improvement 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)

**PART VI**

**STATE PREVAILING WAGE RATES**

## PREVAILING WAGE RATES

This project requires prevailing wages under chapter 39.12 RCW. Any worker, laborer, or mechanic employed in the performance of any part of the work shall be paid not less than the applicable prevailing rate of wage.

The project site is located in Pierce County/Counties.

The effective date for prevailing wages on this project will be the **submittal deadline** with these exceptions:

- a. If the project is not awarded within six months of the submittal deadline, the award date is the effective date.
- b. If the project is not awarded pursuant to a competitive solicitation, the date the contract is executed is the effective date.
- c. Janitorial contracts follow WAC 296-127-023.

Except for janitorial contracts, these rates shall apply for the duration of the contract unless otherwise noted in the solicitation.

Look up prevailing rates of pay, benefits, and overtime codes from this link:

<http://www.lni.wa.gov/TradesLicensing/PrevWage/WageRates/default.asp>

## REQUIRED DOCUMENTS

The Contractor shall submit to the City the following Department of Labor and Industries (L&I) forms for itself and for each firm covered under [39.12 RCW](#) that provided work and materials for the Contract:

1. A copy of an approved Statement of Intent to Pay Prevailing Wages, L&I form number [F700-029-000](#). The City will make no payment under this Contract for the Work performed until this statement has been approved by L&I and a copy of the approved form has been submitted to the City.
2. A copy of an approved Affidavit of Prevailing Wages Paid, L&I form number [F700-007-000](#). The Contracting Agency will not grant completion or release retainage held under chapter 60.28 RCW until all approved Affidavit of Wages paid for Contractor and all Subcontractors have been received by the City.