

# CITY OF TACOMA RIGHT OF WAY GENERAL NOTES

## GENERAL

A.The following special provisions are to be used in conjunction with the City of Tacoma Special Provisions, City of Tacoma Standard Plans and City of Tacoma Right-of-Way Design Manual, " 2022 Standard Specifications for Road, Bridge and Municipal Construction" and "Standard Plans for Road, Bridge and Municipal Construction" as prepared by the Washington State Department of Transportation (WSDOT).

B.Any inconsistency between these work order drawings and the 2022 Standard Specifications or the WSDOT Standard Plans shall be resolved by the following order of precedence (e.g., 1 presiding over 2, 3, and so forth):

1. Approved Work Order Drawings
2. City of Tacoma Special Provisions, including APWA General Special Provisions, as applicable
3. City of Tacoma Right-of-Way Design Manual
4. Amendments to WSDOT Standard Specifications
5. 2020 WSDOT Standard Specifications
6. City of Tacoma Standard Plans
7. WSDOT Standard Plans

C.Any revisions to these plans must be submitted as a Field Revision through Planning Development Services, reviewed and approved by the City of Tacoma prior to any implementation in the field.

D.Contractors shall familiarize themselves with the site and shall bring any discrepancies to the attention of the Engineer of Record prior to undertaking the affected work.

E.Any discrepancy in these drawings, specifications, these notes, and the site conditions shall be reported to the Engineer of Record, who shall correct such discrepancy in writing after reviewing any changes. Any work done by the Contractor after the discovery of such discrepancy shall be done at the Contractor's risk. The Contractor shall verify and coordinate the dimensions among all drawings with their field survey and measurements prior to proceeding with any work.

F.A pre-construction meeting, if required shall be held between the City of Tacoma, the applicant, contractor, and City inspectors prior to issuance of a Work Order permit.

G.No traffic shall be allowed on any newly placed pavement without the approval of the City Inspector.

H.Cold Weather Concrete Work. The following requirements for placing concrete shall be in effect from November 1 to April 1:

1. The Inspector shall be notified at least 24 hours prior to any concrete placement.
2. Weather permitting, all concrete placement shall be completed no later than 2:00 p.m. each day.
3. Where forms have been placed and the subgrade has been subjected to severe frost, no concrete shall be placed until the ground is completely thawed.

At that time, the forms shall be adjusted and subgrade repaired as determined by the Engineer.

## ADDITIONAL PERMITS

A.Separate site development and building permits are required for on-site work including all retaining walls, grading, and erosion control. Adherence to all conditions of these permits is required as a part of this plan.

B.Separate right-of-way construction permits are required for sidewalk installation, as well as, curb and gutter removal and driveway construction when constructed under a site development permit and not a work order.

C.Separate storm and sanitary sewer connection permits are required for each individual connections to the stormwater or wastewater systems and/or each individual treatment device, whichever total is greater. These are over the counter permits.

D.New franchise site services require separate right-of-way utility permits to serve the site. Final restoration shall be coordinated by the project.

## SAFETY/EXCAVATION

A.The existing underground utilities shown hereon are based upon available existing record drawings and are not guaranteed to be accurate, nor all-inclusive. B. All utilities must be verified prior to construction. If the project requires any excavation, the developer/contractor is required to call the Utility Underground Location Center at (800) 424-5555 at least two business days before starting such excavation in accordance with RCW 19.122.

C.It shall be the Contractor's responsibility to protect, in place, all utilities and/or structures whether shown or not shown on this plan. Damage due to the Contractor's operations shall be repaired at the Contractor's expense. A preliminary walk through with photos shared with the inspector prior to the start of work is advised.

D.If workers enter any trench or other excavation four feet or more in depth that does not meet the open pit requirements of Section 2-09.3(3)B, it shall be shored and cribbed. All trench safety systems shall meet the requirements of the Washington Industrial Safety and Health Act, Chapter 49.17 RCW. The Contractor alone shall be responsible for all worker safety, and neither the City of Tacoma nor the Engineer of Record assumes any responsibility.

## PAVEMENT PREPARATION / RESTORATION

A. Additional removal and replacement of pavement may be required to provide proper transition/crown as directed by the City of Tacoma Inspector in the field. Final restoration limits shall be determined in the field by the City of Tacoma Inspector.

B. The street sections shown on this plan are designed to be placed upon a firm and unyielding base.

C. Subgrade compaction shall be tested by a testing professional prior to placing base material.

D.Pavement Preparation shall meet all applicable requirements of City of Tacoma Right-of-Way Design Manual Chapter 4 Sections 5.4 and 5.5.

E. Mix design shall be based on Standard Plan PD-01-Pavement Design Standards and PD-02 Pavement Design Worksheet.

F.Pavement restoration shall be constructed in accordance with the City of Tacoma Restoration Policy and applicable Standard Plans.

G. Unsuitable material to be removed and replaced.

H.All permanent traffic channelization, such as but not limited to legends, raised pavement markings, paint, and signage, shall be restored to current Tacoma Standards. Temporary striping shall be maintained as indicated on the plans or as directed by the City of Tacoma Inspector.

## HOT MIX ASPHALT

A. All standard hot mix asphalt shall be compacted to a minimum of 92 percent of the maximum density as determined by AASHTO T209. All standard hot mix asphalt utilized shall be considered compactable. The level of compaction attained will be determined as the average of not less than 5 nuclear density gauge tests taken on the day the mix is placed (after completion of the finish rolling) at randomly selected locations within each lot. The quantity represented by each lot will be no greater than a single day's production or approximately 400 tons, whichever is less.

B. All testing results shall be provided to the City Inspector within 48 hours of the test.

C. Control lots not meeting the minimum density standard shall be removed and replaced with satisfactory material.

D. In addition to the randomly selected locations for test of the control lot, the City Inspector reserves the right to test any area which appears defective and to require further compaction of areas that fall below acceptable density readings. These additional tests shall not impact the compaction evaluation of the entire control lot.

E. Hot mix asphalt pavement shall not be placed on any traveled way between October 1 and April 1, without written approval from a Planning and Development Services Review Engineer.

## CONCRETE

A.Curing of concrete shall be in accordance with Section 5-05.3(13) of the Standard Specifications.

B.The slump for standard concrete used for sidewalks shall not exceed four inches +/- one inch.

C.Sidewalks and curb ramps shall be constructed in accordance with ADA Standards for Accessible Design, 28 CFR, Part 35 and as supplemented by the Public Works Right of Way Accessibility Guidelines (PROWAG).

## SANITARY AND STORM SEWERS

A. 7-08.3(2)F Plugs and Connections:

Rigid Couplings, manufactured by Romac Industries, Inc., or City of Tacoma approved equal, shall be used at any pipe joint in which bell and spigot or fused joints are not used. Flexible couplings are not permitted.

B. 7-08.3(2)G Jointing of Dissimilar Pipe:

Dissimilar pipes shall be joined by use of rigid couplings manufactured by Romac Industries, Inc., or City of Tacoma approved equal, except for side sewer installation.

C.Sewers and appurtenances shall be cleaned and tested after backfilling by either exfiltration or low-pressure air method at the option of the Contractor, except where the ground water table is such that the Engineer may require the infiltration test.

D. All abandoned pipes encountered during construction and new stormwater and wastewater stub outs shall be sealed with a watertight pipe plug.

E. All frames and grates for standard catch basin inlets on this project shall be "vaned" type and shall conform to that shown on WSDOT Standard Plan No. B-30.10-03, B-30.30-03, and B-30.40-03.

F. Where existing catch basins are modified, grates may be required to be replaced with vaned grates. The City will make the final determination based on the condition of the existing grate and structure.

G. Recycled concrete aggregate shall not be used as gravel backfill where stormwater or groundwater may come into contact with the concrete aggregate, be collected and discharged to the stormwater system or receiving waterbody (such as underdrain systems.). Recycled materials used shall meet the requirements of all applicable local, state, and federal regulations including the City's SWMM, Right-of-Way Design Manual, and Tacoma Municipal Code as applicable to the give application.

H. New connections to brick manholes may be allowed on a case-by-case basis and will be assessed by City staff if it can be structurally cored. Manhole replacement may be required by the Environmental Services Department based upon the condition of the existing manhole.

I. The property side ends of the side sewers shall be marked in the field by means of a 2-inch by 4-inch board and locate wire that extends from the flow line of the side sewer to at least 1 foot above the finished lot grade.

J. After any new stormwater and/or wastewater pipes have been cleaned and the manholes channeled, the main(s) shall be televised for video inspection to provide a record of the constructed conditions and for the wastewater system to verify side sewer connection locations. The City of Tacoma will coordinate this inspection.

## MISCELLANEOUS

A.Fences and structures replaced and/or relocated shall be maintained and remain functional.

B.Independent quality assurance sampling and testing will be provided by a certified independent laboratory for all improvements within the right-of-way. All special inspection reports shall be forwarded to the Site Development Group on a monthly basis consistent with the directions given in the preconstruction meeting, and/or as requested by the City of Tacoma inspector.

C. If hydrant water is needed the contractor is required to contact Tacoma Public Utilities, Water department, at (253) 502-8247, to obtain a permit. TPU may impose a fine for use of a non-registered water meter and/or backflow device.

## EARTHWORKS, GRADING, EXCAVATION, AND EROSION CONTROL NOTES

A.All work is to be done in accordance with the approved grading plan, soils report, the most current WSDOT Standard Specifications For Road, Bridge And Municipal Construction, the 2021 City of Tacoma Stormwater Management Manual, City of Tacoma Standard Plans, and TMC 2.0.

B.When construction operations are such that debris from the work is deposited on the streets, the Contractor shall immediately remove any deposits or debris which may accumulate on the roadway surface. If the Contractor fails to keep the streets free from deposits and debris resulting from the work, the Contractor shall, upon order of the City of Tacoma Inspector, clean the streets and provide facilities for the removal of all rock and sediment from the tires and between wheels before trucks or other equipment will be allowed to travel over paved streets. Should the Contractor fail or refuse to clean the streets in question, or the trucks or equipment in question, the City of Tacoma Inspector may order the work suspended at the Contractor's risk until compliance with the Contractor's obligations is assured, or the City of Tacoma Inspector may order the streets in question cleaned by others and such costs incurred by the City in achieving compliance with these requirements, including cleaning of the streets, shall be charged to the work order account.

C.The Contractor shall protect existing drainage structures using acceptable methods and materials as shown on this plan. If the methods and materials as shown on this plan are not adequate, the City of Tacoma Inspector may require additional/alternative methods for erosion control and/or protection of existing drainage structures. Additional or alternative methods shall be submitted by the design engineer and accepted by the City of Tacoma Inspector. Any damage caused to the City of Tacoma stormwater system as a result of the work outlined on this plan shall be the sole responsibility of the Contractor. Resolving said damage may include, but not be limited to, the cleaning of the drainage system in question by the Contractor.

D.Watering provisions when applicable must be in place to prevent dust from becoming air borne. Violation of this condition will result in a stop work order until corrected.

E.Fill that will support a street section or other structures shall be placed under the inspection of a Washington State licensed Professional Engineer. Soil to be placed shall be tested and compacted to 95 percent of its maximum density. Engineer shall document existing site conditions, soil and its placement and allowable bearing capacity submitted. Standard requirements for cuts and fill are contained in the WSDOT Standard Specifications For Road, Bridges, and Municipal Construction.

F. A Construction Stormwater Pollution Prevention Plan (SWPPP) in accordance with the 2021 City of Tacoma Stormwater Management Manual is required for all projects with over 2,000 square feet of impervious surface.

G. Soil shall not remain unworked or exposed for more than 2 days.

H. Per TMC 10.22.140.C, no construction shall be performed nor shall any traffic lane be closed to traffic between Thanksgiving day and New Year's day within the downtown core and outlying business districts unless otherwise approved by the Director. View maps of these areas online:

https://www.cityoftacoma.org/government/city\_departments/community\_and\_economic\_development/neighborhood\_business\_districts

## INSPECTIONS

A.All erosion control shall be in place prior to clearing except for that clearing necessary to install said erosion control measures. The contractor shall schedule an inspection for the City of Tacoma Inspector for initial erosion control inspection prior to start of work, per item E. below.

B.Erosion control measures shall be maintained at all times to the approval of the City of Tacoma Inspector.

C.Should temporary erosion and sedimentation control measures, as shown on plans become inadequate, the contractor shall install facilities as necessary to protect adjacent properties and the City of Tacoma drainage system, meeting approval of the City of Tacoma Inspector.

D.Not considered a complete list of inspections required. Call for inspection of the City of Tacoma Inspector upon completion of:

- Erosion control measures and ongoing regular maintenance
- Compaction reports on trenches prior to placement of crushed rock/backfill
- Channeling of manholes
- Air-testing of sewer mains
- Compaction reports for crushed rock prior to placing asphalt
- Any concrete work: inspection is required for subgrade, forms, and finish
- Adjustments of Utilities
- Monumentation
- Stand Alone Permits: such as driveways, sidewalk, SEWER, STORM, RUTI, street lighting
- WATER permits – these cover the connection from the meter to the house
- Hydroseeding of cuts/fills and slope stabilization
- Final clean-up and project completion
- Construction Deficiency List (Punchlist)

E. All material removed from site shall be placed only at a permitted site. Verify location of destination of material prior to exportation. Material excavated from the site shall be discarded at an approved facility per Pierce County Health, Ecology.

F. All wastewater and stormwater pipes shall be video inspected by City Forces prior to paving where paving occurs over sewers. All other sewers will be video inspected prior to final acceptance of new mains.

G. If contaminated soils are suspected and/or encountered within the project contact your inspector. For more information contact the Department of Ecology.

H. All work performed by contractor shall comply with the procedures required WAC 296-62 and WAC 296-65. Contractor shall contact the Puget Sound Air Pollution Control Authority in Seattle at 206-344-7330 for information regarding removal and packaging and Pierce County Environmental Health Department in Tacoma, WA at 253-591-6571 for information regarding transportation and disposal.

I. Contractor shall conform to Department of Ecology's guidelines for contamination cleanup for projects within the Tacoma Smelter Plume Project Area. For more information contact the Department of Ecology at 360-407-7096.

## TREE REMOVAL/PROTECTION

A. All areas that are cleared and grubbed, graded, excavated or filled are subject to stabilization. Any of these areas that are left unpaved or lack landscaping shall be hydroseeded or otherwise fully stabilized under the direction and approval of the Construction Inspector.

B. Hydroseeding may occur only during the periods of April 1 though May 31 or September 1 though October 15. Hydroseeding may be allowed during the months of June through August if irrigation is provided.

C. Monitor and maintain hydroseeded areas throughout the winter wet season to ensure that no erosion occurs.

D. Trees to be removed shall be clearly marked for removal. Trees to be saved shall be fenced with barricade fence at the drip line (outer edge of tree branches) to keep construction vehicles from compacting root zone and killing trees. This fencing shall be maintained until construction ends.

E. Tree protection measures to be installed with initial TESC measures and shall be maintained throughout the duration of site work. Refer to City of Tacoma Std. Plans LS-08 through LS-11.

## TRAFFIC CONTROL

A. Per TMC 10..22.140.C, no construction shall be performed nor shall any traffic lane be closed to traffic between Thanksgiving day and New Year's day within the downtown core and outlying business districts unless otherwise approved by the Director. View maps of these areas online:

https://www.cityoftacoma.org/government/city\_departments/community\_and\_economic\_development/neighborhood\_business\_districts

B.Prior to the start of any work within the City of Tacoma ROW a complete TCP set shall be on site in addition to a complete set of approve drawing.

## MONUMENT REMOVAL PERMIT PROCESS

A. "No survey monument shall be removed or destroyed (the physical disturbance or covering of a monument such that the survey point is no longer visible or readily accessible) before a permit is obtained from the Department of Natural Resources (DNR)." WAC 332-120-030(2) states "It shall be the responsibility of those performing construction work or other activity (including road and street resurfacing projects) to adequately search the records and the physical area of the proposed construction work or other activity for the purpose of locating and referencing any known or existing survey monuments." Construction shall not commence until WAC outlined in Chapter 332-120 is complied with.

B. Monuments on the plans shall be protected in place or the plans will call out the identified DNR permit for removal and replacement.

## HORIZONTAL CONTROL AND VERTICAL CONTROL

Work in the right-of-way will be performed using construction staking established from two (2) City monuments for establishing control and basis of bearing. A list of survey monuments can be found at <https://cms.cityoftacoma.org/PublicWorks/Engineering/LandSurvey/SurveyMons.pdf>

## HORIZONTAL AND VERTICAL CURVES

For all infrastructure constructed using horizontal and/or vertical curves, grade stakes must be set every 25 feet and at grade breaks with a minimum of 3 stakes for each curve. Stakes shall be placed at radius points on street returns.

## STAKING REQUIREMENTS

A. Construction staking shall be per Standard Plan SU-26.

B. SANITARY SEWER AND STORMWATER

1. Clearing stakes if needed.
- 2.Stakes every 50 feet plus grade breaks. Try to maintain 12 foot offsets in streets and 8 foot offsets in alleys.
- 3.Double offsets at manholes and catch basins (ahead and back stakes at angle points).
- 4.Catch basin station shall be to the centerline of the basin. Catch basin offsets shall be to the face of the curb.

C. RESIDENTIAL STREETS AND PRIVATE ACCESSWAYS

- 1.Clearing stakes as needed.
2. Slope stakes every 50 feet and grade breaks if cuts or fills exceed 2 feet.
- 3.Curb stakes every 50 feet and grade breaks, on 4 foot offset to the face of curb. Curb stakes are set to the top of curb grade (Blue Tops).
4. Also stake the beginning and end of all approaches.
5. No centerline of street grades unless the street grade is warped. If street grades are needed, set blue tops for each course.

D. ARTERIAL STREETS

- 1.Clearing stakes as needed.
- 2.Slope stakes every 50 feet and grade breaks if cuts or fills exceed 2 feet.
- 3.Curb stakes every 50 feet and grade breaks, on 4 foot offset to the face of curb.
- 4.Curb stakes are set to the top of curb grade (Blue Tops). Also stake the beginning and end of all approaches.
5. Stake centerline and quarterline grade every 50 feet and grade breaks at grade for each course.

E. ALLEYS

- 1.Stake both sides every 50 feet and grade breaks, on a 2 foot offset to the edge of paving, with a cut or fill to edge of paving on high side and flow line on low side.

F. SIDEWALKS

- 1.Offsets for walks are set on 50' intervals and grade breaks normally at 2 foot to edge of walk and at edge of walk grade (Blue Tops).
- 2.Sidewalk alignment is normally at 5 feet from the face of curb. No walk grades are needed if curbs are built but running slope and cross slope per American with Disabilities must be met for all new walk meeting the design.

## RECORD DRAWINGS CRITERIA FOR ACCEPTANCE OF ALL PRIVATE WORK ORDERS

A. Record drawings shall be received and accepted prior to issuing utility connection permits or release of performance bonds.

B. All revisions to the approved plans must be approved by the City of Tacoma prior to implementation of the changes.

C. A determination at the time of proposal to the Site Review Engineer shall be made whether the revision can be addressed with red line drawings submitted as a part of the record drawings or if it will require formal submission for approval.

D. Record drawings shall show the station, offset, centerline and gutter flowline elevations, to nearest 0.01 foot; for all horizontal and vertical roadway alignment changes, at the intersection end of radius points and at the beginning and end of new paving.

E. Record drawings shall show the station, offset, invert, and rim elevations to the nearest 0.01 foot for all stormwater and wastewater structures. (i.e.: manholes, catch basins, etc.)

F. Record drawings shall show all side sewers and shall locate them by measurements from permanent objects. (i.e.: curb, property corner, etc.) In addition, the depth of all side sewers shall be noted on the record drawings and locate board.

G. Record drawings shall show vertical and horizontal datum for survey monuments (existing or new construction) within the limits of the project.

H. Record drawings shall consist of a clean set of approved work order drawings with all changes noted above shown in red.


I. Record drawings, including the Engineer's Certification, as applicable, must be submitted within 30 days of substantial completion and prior to release of the performance bond or assignment of funds or City survey crews will collect the necessary data and bill against the work order.

## BOND RELEASE

The following are required to be collected for the performance bond to be release to the owner:

- Punchlist Completion.
- Record Drawings
- Engineer Certification for Stormwater Facilities

Revised: January 26, 2023

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