

## Standard Drawing Notes

# A

### GENERAL NOTES

1. The City of Poulsbo has adopted the following standards and specifications. In the event that there is a conflict between the documents, the more restrictive shall apply, as determined by the Public Works Director/designee. Unless stated otherwise, the latest edition and amendments shall apply.
  - a. The “City of Poulsbo Construction Standards and Specifications.”
  - b. The “Standard Specifications for Road, Bridge, and Municipal Construction” and “Standard Plans For Road, Bridge and Municipal Construction” prepared by APWA / WSDOT.
  - c. The stormwater manual or manuals currently adopted under Poulsbo Municipal Code 12.02.
  - d. The Department of Ecology Criteria for Sewage Works Design.
  - e. The Manual on Uniform Traffic Control Devices, US Department of Transportation, Federal Highway Administration.
2. Inspections and Tests. All construction is subject to inspection and approval by the City of Poulsbo. The contractor shall notify the City of his schedule a minimum of 24 hours in advance to permit inspection prior to and during the work.
  - a. The Public Works Director and his authorized representatives shall, at all times, have access to the work for the purpose of inspecting and testing, and the contractor shall provide proper facilities for such access and such inspection and testing.
  - b. If any work is covered up without approval, inspection or consent of the Public Works Director or his representative, it must, if required by the Public Works Director, be uncovered for inspection.
  - c. Before a performance test is to be observed by the City inspector, the owner, permit holder, or contractor shall make whatever preliminary tests are necessary to assure that the material and/or equipment are in accordance with the plans and specifications.
  - d. When special inspections by a qualified professional are required in addition to, or instead of, inspection by the City inspector, the contractor, owner, or permit holder shall arrange for such inspection and shall submit evidence of their approval to the City Engineer.
  - e. Compaction tests will be required to ensure adequate compaction on all lifts for trench backfill and roadway/parking lot construction. All compaction tests

shall be conducted by a licensed testing laboratory at the expense of the developer/contractor. Compliance with compaction and moisture specifications shall be monitored throughout the project. Copies of all test reports shall be provided to the City Engineer within 24 hours. The contractor/developer is responsible for scheduling compaction testing with the laboratory.

- f. For work inspected by the City, the City will provide written notice of deficiencies, adequately describing the same, to the owner, permit holder, or contractor prior to final approval of the construction. The deficiencies shall be corrected to the satisfaction of the City inspector before final inspection or acceptance will be made by City.
3. Construction hours are 7 am to 7 PM weekdays and 8 am to 7 PM weekends or Federal, State and City holidays. Work requiring inspection by the City must be performed between 7 am and 3:30 PM weekdays. Inspections performed outside of regular work hours require approval from the City Engineer and will be billed at 1.5 times the hourly rate in addition to the standard inspection fees.
4. Any revisions to the approved construction plans shall be reviewed by the City and approved by the City Engineer prior to implementation in the field.
5. No work except surveying may commence until all permits have been issued by the City of Poulsbo. An approved "Temporary Erosion and Sedimentation Control Plan" must be implemented prior to any site work except surveying.
6. A Public Property Construction Permit must be obtained from the City of Poulsbo prior to the commencement of any work proposed on or in City right-of-way.
7. The contractor shall notify the developer's engineer immediately if there is any conflict or potential for conflict between existing and proposed utilities. In the event of conflict, the developer's engineer may modify design locations of a proposed utility. The City Engineer must approve the modification prior to implementation on the site.
8. All locations of existing utilities are approximate and it shall be the responsibility of the contractor to verify the exact locations, depths, and sized prior to construction. The contractor shall contact the "Underground Locate" center at 1-800-424-5555, and non-subscribing individual utility companies, 48 hours in advance of the commencement of any construction activity. The contractor shall provide for protection of existing utilities from damage caused by his operations.
9. Any existing water, sewer, or storm stubs or pipes which will no longer be in service shall be removed or filled with controlled density fill (CDF) and disconnected at the main in accordance with the current standards in place at the time of disconnection.
10. The contractor is responsible for all traffic control on the site or any other areas affected by the construction of the project. A traffic control plan shall be submitted to the City Engineer for approval a minimum of 48 hours prior to any work commencing in the right-of-way.
11. No burning will be allowed without a Burn Permit from the City of Poulsbo Fire Department.

12. The contractor shall document all as-built information not shown on the approved plans and provide that information to the developer's engineer for incorporation into the final as-built drawings.
13. All construction staking is the responsibility of the developer. Property corners shall be staked prior to any site activity. In plats, all lot corners and property corners shall be staked prior to utility construction. Permanent staking shall not be offset without the approval of the City Engineer.
14. A set of construction plans approved by the City Engineer and all required permits shall be on the site at all times during construction.
15. A pre-construction meeting is required with the City Engineer/designee prior to any ground-disturbing site activity.

## **EROSION CONTROL NOTES**

### **GENERAL**

1. The erosion control facilities shown on these plans must be constructed in a manner that insures that sediment-laden water does not enter the drainage system and existing waterways, or violate applicable water standards. The contractor shall use all available means to achieve this result.
2. All exposed soils shall be vegetated or covered no later than October 1. No grading or exposed soils will be allowed between 1 October and 1 April without approval by the City Engineer. The site work contractor shall be responsible for installing and maintaining all erosion control measures through all phases of construction and final site stabilization.
3. All exposed and unworked soils, including soil stockpiles, shall be stabilized by suitable application of BMPs which protect soil from the erosive forces of raindrop impact and flowing water. Applicable practices include, but are not limited to, vegetative establishment, mulching, plastic covering, and the early application of gravel base on areas to be paved. From October 1 to April 30, no soils shall remain unstabilized for more than 2 days. From May 1 to September 30, no soils shall remain unstabilized for more than 7 days.
4. At all times of the year, the contractor shall have sufficient materials, equipment, and labor on-site to stabilize and prevent erosion from all denuded areas within 12 hours as site and weather conditions dictate.
5. The erosion and sedimentation control systems depicted on these drawings are intended to be minimum requirements to meet anticipated site conditions. As construction progresses and unexpected (or seasonal conditions dictate), the permittee should anticipate that more erosion and sedimentation control facilities may be necessary to insure complete siltation control on the site. During construction, it shall be the obligation and responsibility of the permittee to address any new conditions that may be created by his activities and to provide additional facilities, beyond the minimum requirements shown, as may be needed to protect adjacent properties and water quality of the receiving drainage system. Additional measures may also be required by the City Engineer.
6. Where possible, maintain natural vegetation for silt control and to minimize erosion.

7. Return siltation control areas to original ground conditions at project completion.
8. Stabilized construction entrances are required and shall be installed and maintained for the duration of the project. The location of the entrance shall be coordinated with the City prior to construction or relocation. Additional measures may be required to ensure that all existing paved areas are kept clean for the duration of the project.
9. All dirt, mud, and debris tracked out onto City streets shall be cleaned up and removed immediately. Streets shall be swept daily or as directed by the City Engineer. Sweeping or washdown of streets where runoff, dirt, mud, or debris is directed into the storm system or existing waterways will not be allowed. In dry weather, dust control shall be maintained at all times.
10. The erosion control facilities shall be inspected daily by the contractor and maintained as necessary to ensure their continued functioning.
11. The erosion control facilities on inactive sites shall be inspected and maintained a minimum of once a month or within 24 hours following a storm event and any other time when directed by the City Engineer.
12. All storm inlets shall be protected to prevent sediment from leaving the project site. At a minimum, sediment socks shall be placed in each catch basin. At no time shall more than one-foot of sediment be allowed to accumulate within a trapped catch basin. All catch basins and conveyance lines shall be cleaned prior to final project approval. The cleaning operation shall not flush sediment-laden water into the downstream system.
13. Temporary erosion control measures shall remain functional and in place until their removal is directed by the Engineer. The contractor shall completely restore all areas disturbed by removal of temporary erosion control measures. Removed materials shall become property of the contractor to be disposed of in accordance with applicable laws and jurisdictions.
14. The contractor shall assure that no concrete or concrete by-products enter the storm drainage system or natural stream courses.
15. The contractor shall comply with erosion and sediment control requirements as outlined in Volume 2 of the Department of Ecology Stormwater Manual.

#### **SEDIMENT FENCES**

16. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid the use of joints. When joints are necessary, the filter fabric shall be spliced together only at a support post, with a minimum six-inch (6") overlap, and both ends securely fastened to the post.
17. The filter fabric fence shall be installed to follow the ground contours (where feasible).
18. When standard length filter fabric is used, a wire support fence shall be fastened securely to the up-slope side of the posts using heavy duty wire staples at least one inch (1") long, tie wires or hog rings. The wire shall extend into the trench a minimum of four inches. At least twenty-four (24) inches or more of the fence shall be above the ground.
19. Filter fabric shall not be stapled to existing trees.

20. The trench shall be backfilled with 3/4-inch minimum diameter washed gravel.
21. Filter fabric fences shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
22. The filter fabric fence shall be removed when they have served their useful purpose, but not before the up-slope area has been permanently stabilized.
23. The filter fabric shall have a minimum vertical burial of twelve inches (12"). All excavated material from the filter fabric fence installation shall be installed as backfill and compacted along the entire disturbed area.
24. The contractor shall immediately make any repairs to the filter fabric.

**MAINTENANCE OF FILTER FENCES:**

25. Filter fabric fence shall be inspected immediately after each runoff-producing rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
26. Sediment shall be removed when it reaches approximately one-third the height of the fence (eight inch maximum), especially if heavy rains are expected.
27. Any sediment deposits remaining in place after the filter fence is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

**TEMPORARY AND PERMANENT HYDROSEEDING:**

28. All areas disturbed during construction where permanent landscaping will not be provided within 60 days shall be hydroseeded, or otherwise stabilized, as required. Straw mulching or plastic sheeting are acceptable alternatives to temporary hydroseeding during periods of low growth.
29. Permanent seeding in all disturbed areas within the project boundary shall adhere to the following specifications:  
Minimum 80 lbs./acre mixture of:

20% annual, perennial ryegrass	fertilizer-400 lbs./acre of 10-20-20
40% creeping red fescue	mulch-2000 lbs./acre
40% white clover	

**SEQUENCE OF CONTROL MEASURES:**

30. Filter fence barriers, staked straw bales, gravel filters, and construction entrances shall be constructed in the locations shown on the plans.
  - a. Siltation basins shall be constructed to the size indicated on the plans.
  - b. Site clearing and grading may proceed following the installation of the above items.
  - c. All siltation barriers and basins shall be maintained to provide the required protection.
  - d. Barriers may not be removed until construction is completed and final site stabilization is in place and functional.

## **ROAD AND STORM DRAINAGE NOTES**

### **ROAD**

1. The contractor shall obtain approval of all fill and road construction material from the City Engineer prior to its use on the project.
2. Roadbed and parking lot compaction shall be a minimum of 95% maximum density. The developer/contractor shall provide the City with satisfactory test reports from a certified testing lab before paving is placed. The location and frequency of testing shall be determined by the City and the testing technician.
3. All concrete for sidewalks shall be air entrained per WSDOT specifications.
4. Materials under sidewalks shall be compacted to 95% of maximum density.
5. Sidewalk contraction joints shall be spaced at 5-foot intervals. Expansion joints shall be spaced at intervals not to exceed 25 feet. Expansion joints in pervious concrete sidewalk shall be spaced at intervals not to exceed 30 feet.
6. All sidewalks shall be backfilled to the top back of the sidewalk immediately after the forms are removed.
7. Driveway curbcuts/approaches shall conform to ADA requirements and be constructed per the adopted Standard Plans. The approach shall be reinforced with 10-gauge, 6 X 6 welded wire mesh.
8. Residential driveways shall be no less than 10 feet wide or more than 20 feet wide, exclusive of the transition back to sidewalk grade. Residential driveways wider than 20 feet require specific approval by the City Engineer.
9. When driveway widths exceed 16 feet, an expansion joint shall be placed longitudinally at the center of the approach.
10. All traffic markings and signage shall conform to the Manual of Uniform Traffic Control Devices and be installed by the developer prior to final approval of the construction or at an earlier time designated by the City Engineer. All arrows, crosswalks, and stopbars shall be white, torch-down thermoplastic.

### **DRAINAGE**

11. Drainage and detention systems must be installed and functioning prior to final road grading and placement of the gravel base course.
12. Special note shall be taken of the bedding and backfill requirements in the WSDOT Standard Specifications.
13. Catch basin frames and grates shall be installed with flanges down. Flanges cast into risers will not be allowed.
14. The contractor shall clean catch basins as needed, or when directed by the City Engineer. The entire on-site storm system shall be cleaned before the City will grant final construction approval.
15. For plats, drainage laterals must extend a minimum of 12 feet behind the property line. The location of laterals at the property line shall be marked with a 2 by 4-inch wooden stake 4-feet long buried in the ground a depth of 3-feet. The low end shall have a 2 by 4-inch cleat nailed to it to prevent withdrawal of the stake. The exposed end shall be painted traffic white and the lot number and depth to the lateral shall be indicated in black paint on the 2 by 4. In addition, a length of 12-gauge galvanized wire shall be provided to extend from the plugged end of the lateral. The upper end shall emerge at the 4-foot stake, but shall not be fastened to it.

16. Storm sewers shall be tested in accordance with WSDOT specifications.
17. All services (laterals) shall be 6-inch diameter, minimum, laid on a minimum slope of 2 percent. All laterals shall have a vertical inspection tee (riser pipe/cleanout), of the same diameter as the lateral, at the property line. The riser pipe shall have a screw cap and not be more than 12 inches or less than 6 inches below the finish grade elevation.
18. Riser pipes (cleanouts) installed in landscape or other non-hard-surfaced areas shall be enclosed in a Carson and Brooks ten-inch sewer pit or equal as approved by the Public Works Director. Preferably, the cover shall have the word "storm" or "drainage" integrally cast on it; however, in no case shall it say "sewer".
19. Riser pipes (cleanouts) installed in streets, driveways, or walkways, shall have a cast iron frame and cover and shall be placed at finish grade. Preferably, the cover shall have the word "storm" or "drainage" integrally cast on it; however, in no case shall it say "sewer".

### **SANITARY SEWER NOTES**

1. The contractor shall adjust all manhole rims to flush with final finished grades.
2. All side sewers (laterals) shall be 6-inch diameter, minimum, laid on a minimum slope of 2 percent. All laterals shall have a vertical inspection tee (riser pipe) at the property line.
3. All cleanouts for mains and laterals, whether installed in paved or unpaved areas, shall have a cast iron frame and cover as shown in the standard detail, with the word "sewer" integrally cast in the cover, and shall be placed at finish grade. The riser pipe shall be the same diameter as the main or lateral, have a screw cap, and not be more than 8 inches, or less than 4 inches, below the finish grade elevation.
4. For plats, sewer laterals (side sewers) must extend a minimum of 12 feet behind the property line. The location of laterals at the property line shall be marked with a 2 by 4-inch wooden stake 4-feet long buried in the ground a depth of 3-feet. The low end shall have a 2 by 4-inch cleat nailed to it to prevent withdrawal of the stake. The exposed end shall be painted traffic white and the lot number and depth to the lateral shall be indicated in black paint on the 2 by 4. In addition, a length of 12-gauge galvanized wire shall be provided to extend from the plugged end of the lateral. The upper end shall emerge at the 4-foot stake, but shall not be fastened to it.
5. Pipe zone bedding and backfill shall be compacted to 90% of maximum density, and trenching backfill shall be compacted to 95% of maximum density. Bedding, backfill, and compaction for force mains shall be as per water mains.
6. Bedding material and placement for all PVC sewer pipe shall per current WSDOT Standard Specifications. Bedding shall be placed, spread, and compacted before the pipe is installed so that the pipe is uniformly supported along the barrel. The first lift shall provide at least six inches of bedding under any portion of the pipe. Subsequent lifts of not more than 6 inches thickness shall be installed to a depth of 6 inches over the crown of the pipe. Each lift shall be compacted to 90 percent of maximum density as determined by ASTM D1557.

- Material shall be worked carefully under the pipe haunches and then compacted.
7. Backfill above the pipe zone shall be accomplished in such a manner that the pipe will not be shifted out of position or damaged by impacting or overloading. Backfill shall be consolidated to at least 85 percent maximum density in trenches in unpaved areas, and to at least 95 percent maximum density in paved areas. Material excavated from the trench shall be used for backfill above the pipe zone, except that organic material, wood, rocks larger than six inches in maximum dimension, or debris shall be removed before backfilling. Materials determined by the City Engineer to be unsuitable for backfill at the time of excavation shall be removed and replaced with imported backfill material that is acceptable to the City Engineer.
  8. All sewer installation inspections and test observations shall be made by the City of Pousbo. A television inspection is required before final acceptance of the sewer system. The television inspection and acceptance is required before pavement is placed. The contractor shall furnish all equipment for video inspection. The video equipment shall be capable of recording the inspection on DVD format and a copy of the DVD shall be supplied to the City. A report shall be provided which documents distances between manholes, locations/distances and directions of laterals, observations of defects or potential defects, and any other information which would be beneficial for determining the as-built configuration and condition of the sewer main. Final acceptance of sewer installations will not be made until tests and inspection are complete and prove satisfactory.
  9. Gravity mains shall be tested by the low-pressure air method. Pressure mains shall be tested by the hydrostatic test method. All tests shall be made in the presence of the City Inspector.

## **WATER NOTES**

1. The contractor shall comply with all the requirements of the State and Local Health authorities.
  - a. All commercial buildings shall have a Washington State approved backflow assembly installed on the domestic water service and irrigation service. Device must be tested by a City-approved state-certified Backflow Assembly Tester (BAT) upon installation. Provide a copy of the test report to the Pousbo Public Works Department. Assemblies installed outside of buildings shall be enclosed in an appropriate box or vault. In traffic areas, the box must be traffic rated. In non-traffic areas the box may be plastic.
  - b. For irrigation, a double check valve assembly (DCVA) shall be installed within 18" of the downstream side of the water meter. The double check valve assembly shall be tested by a "city approved" state certified tester upon installation. A copy of the test report must be sent to the Public Works and Engineering departments.
2. No splices will be allowed in poly pipe except when a "T" is installed at a junction for a service blowoff, or air release valve.
3. 14-gauge locator wire shall be buried along the entire length of the pipe and shall be stripped and connected to a bolt on each gate valve, and be brought to the surface at each meter, gate valve, blow-off, and air vacuum valve. The wire



at valve boxes shall be brought up the outside of the valve box and inserted through a hole drilled six (6) inches below the top of the box. The inserted portion of the wire shall be formed into a six (6) inch diameter loop. All splices in the locator wire shall be made using split bolt connectors or with a double nut connection at a fitting.

4. All service lines between the main and the meter shall have 14-gauge locator wire placed along the top of the pipe for the entire length of the pipe.
5. Fire hydrants shall be painted with a fresh coat of Ace brand Safety Red paint for exterior metal. Hydrants shall be properly cleaned and prepared for repainting. Spray paint is not allowed.
6. Bedding for pipe shall be per current WSDOT specifications and standard plans. Special note shall be taken that the bedding material shall be rammed and tamped around the pipe to 95 percent of maximum density by approved hand tools to provide firm and uniform support for the full length of the pipe, valves, and fittings. Care shall be taken to prevent any damage to the pipe or its protective coating.
7. Backfill shall conform to current WSDOT specifications.
8. Compaction shall conform to current WSDOT specifications. Trench backfill shall be compacted to 95% of maximum density.
9. The minimum cover for water mains shall be three (3') feet and shall be maintained at all points.
10. Service taps shall be a minimum of 18 inches from the nearest edge of any fitting and a minimum of 12 inches from any other service tap.
11. The contractor is responsible for filling, flushing (including proper disposal of super-chlorinated water), and pressure testing the water main. Satisfactory bacteria test results are required prior to pressure testing. The contractor is responsible for the cost of all testing. The contractor shall coordinate all filling, flushing, and testing with the City of Poulsbo Public Works Department, 360-779-4078. All flushing shall occur at night between 10 pm and 2 am. Pressure testing and acceptance is required before pavement is placed.
12. All vaults shall have a positive drain to daylight.
13. All meters sized 1-1/2" and larger shall include a high by-pass option.
14. All meter boxes shall be placed in grass or landscape areas.
15. All mechanical connections (fittings, valves, etc.) shall use a mega-lug style follower or equivalent.
16. All hydrants require bollards except when approved by appropriate personnel.
17. Meter box lids shall have a 1 3/4" hole for the sensor pad.