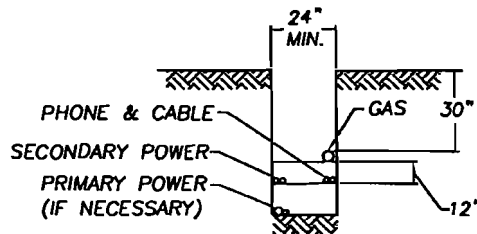
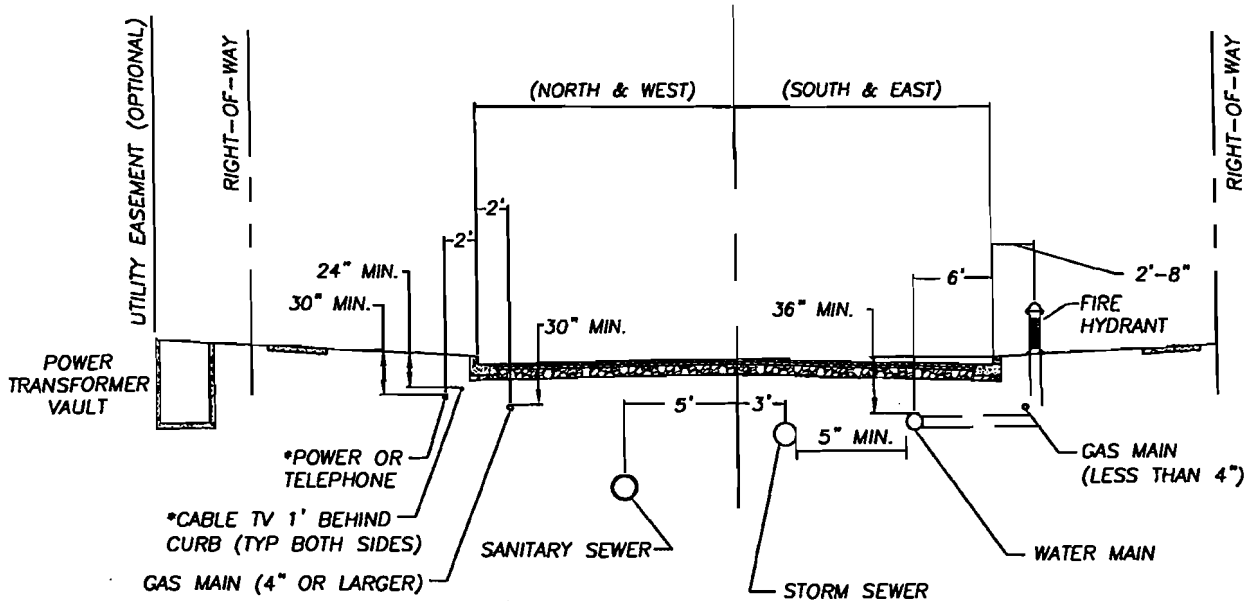


STANDARD DETAIL LIST

General Details

| Dwg. | Title |
|-------------|--|
| G-1.0 | Blank |
| G-1.1 | Underground Utility Locations |
| G-1.2 | Standard Pipe Bedding |
| G-1.3 | Typical Trench Sections |
| G-1.4 | Blank |
| G-4.1 | Standard Sanitary Notes |
| G-4.2 | Standard Force Main Construction Notes |
| G-5.1 | General Water Notes |



***JOINT TRENCH DETAIL (OPTIONAL)**

NOTES:

1. LOCATIONS SHOWN ARE TYPICAL. ON STREETS WITH CENTER TURN LANES OR MEDIANS, THE LOCATION OF THE SEWER OR STORM LINES MAY BE ADJUSTED TO KEEP MANHOLES OUT OF MEDIANS AND MANHOLES CONES ARE TO BE ROTATED TO KEEP MANHOLE COVER LOCATED OUTSIDE OF WHEEL PATH.
 2. ANY VARIATION FROM THIS DESIGN MUST BE APPROVED BY THE CITY ENGINEER.
 3. FRANCHISE UTILITIES - IF SIX FOOT UTILITY EASEMENT IS PRESENT ALONG PROPERTY FRONTAGE, PLACEMENT SHALL BE AT BACK OF SIDEWALK WITHIN UTILITY EASEMENT. ALTERNATE LOCATIONS CONSIDERED ONLY TO SALVAGE CORE ROADWAY, OR TO AVOID SUBSTANTIAL CONFLICT WITH EXISTING UTILITIES. GAS VALVES ARE TO BE LOCATED 2' MIN. FROM FACE OF CURB.
- MINIMUM COVER:
 GAS - 30"
 CABLE TV - 24" IN STREET
 18" IN SIDEWALK-EXISTING SUBDIVISION
 ALL OTHERS - 36"

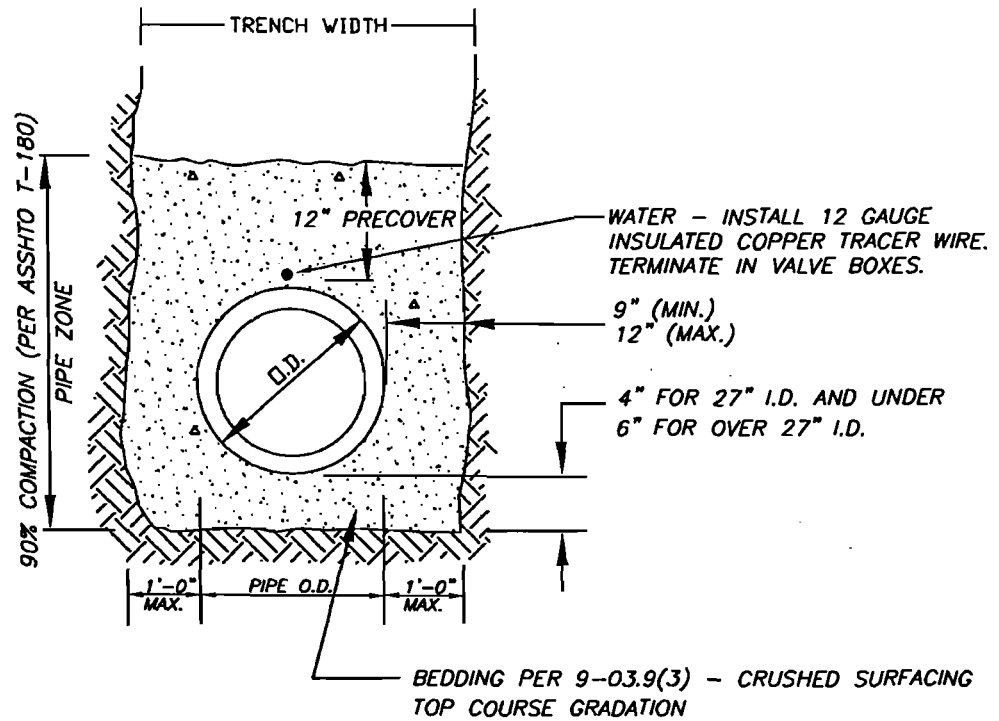
REV. 2/26/08 SCH

UNDERGROUND UTILITY LOCATIONS

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
G - 1.1



NOTES:

1. WHERE DIRECTED BY THE ENGINEER, GRANULAR TRENCH FOUNDATION STABILIZATION SHALL BE PLACED PRIOR TO PLACEMENT OF THE BEDDING. SIZE AND DEPTH ARE DEPENDENT ON SOIL CONDITIONS.
2. BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED AS SPECIFIED PRIOR TO BACK-FILLING THE REMAINDER OF THE TRENCH.
3. FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVEREXCAVATED A MINIMUM OF 6" AND REFILLED WITH GRANULAR MATERIALS AS DIRECTED BY THE ENGINEER.
4. BACKFILL AND COMPACTION ABOVE THE PIPE ZONE SHALL BE AS SHOWN IN STANDARD PLAN NO. G-1.3.
5. CITY WATER LINE SHALL HAVE 36" MINIMUM COVER FROM TOP OF PIPE TO FINISHED GRADE.

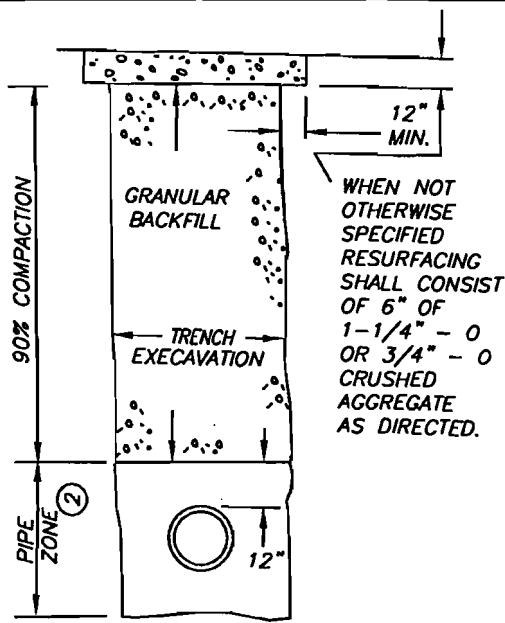
REV. 3/04/08 SCH

STANDARD PIPE BEDDING

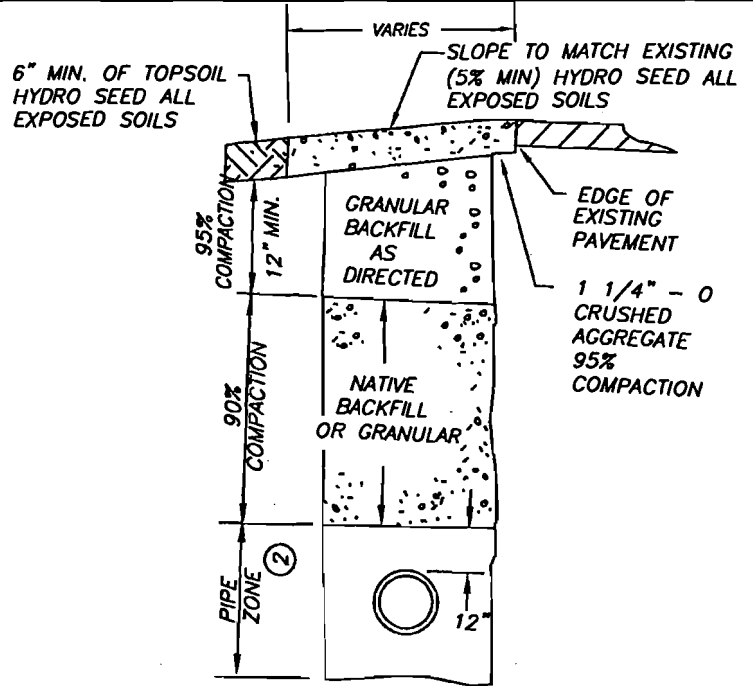
STANDARD
DETAILS

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SHEET
G-1.2



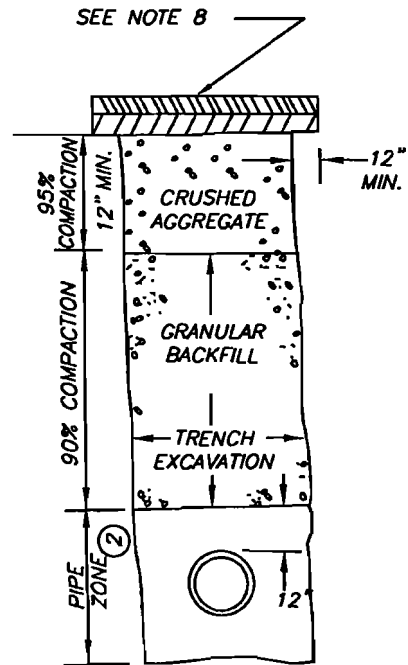
TRAVELED UNIMPROVED (GRAVEL) STREET



ROADWAY SHOULDER

NOTES:

1. SEE WSDOT SPECIFICATION FOR COMPACTION REQUIRMENTS. COMPACTION PERCENTAGES REFER TO MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR (AASHTO T-180)
2. FOR PIPE ZONE BEDDING AND COMPACTION REQUIREMENTS, SEE STD. PLAN NO. G-1.2
3. CONTRACTOR MAY USE UP TO 2-1/2" DEPTH OF 5/8"-0 OR 3/4" - 0 CRUSHED AGGREGATE IN LIEU OF 1-1/4" - 0 BASE ROCK UNDER SURFACING FOR LEVELING COURSE.
4. ALL EXISTING PAVED SURFACES SHALL BE SAW CUT A MINIMUM OF 12" OUTSIDE OF EDGE OF TRENCH TO PROVIDE A NEAT STRAIGHT EDGE.
5. THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED PER STD. SPEC. SECTION 5-04.3(5)A. ALL JOINTS SHALL BE SEALED WITH AR-4000 AND SANDED.
6. ALL BACKFILL SHALL BE MECHANICALLY COMPACTED IN LIFTS WHICH DO NOT EXCEED RATED CAPABILITY OF EQUIPMENT USED, BUT IN NO CASE EXCEED 12" LOOSE.
7. GRANULAR BACKFILL SHALL BE CRUSHED SURFACING IN ACCORDANCE WITH WSDOT SECTION 9-03.9(3) BASE COURSE GRADATION.
8. CLASS 1/2", PG 58-22 SUPERPAVE, ASPHALT SHALL BE PLACED IN 2 LIFTS, 5" DEPTH FOR ARTERIALS, 4" DEPTH FOR COLLECTOR & RESIDENTIAL STREETS.
9. FOR UTILITIES INSTALLED WITHIN THE TRAVEL LANE AND PARALLEL WITH THE CENTERLINE OF THE ROAD, A HALF STREET GRIND AND OVERLAY SHALL BE REQUIRED



PAVED SURFACED

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TYPICAL TRENCH SECTIONS

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
G-1.3

STANDARD SANITARY NOTES

1. All sanitary sewer construction will conform to the current City of Ridgefield Engineering Standards for Public Works Construction Specifications.
2. All Work in the City right-of-way will conform to the requirements of the street cut utility permit.
3. Contractor shall contact the NW Utility Notification Center at 1-800-553-4344 at least two (2) working days before but not more than (10) ten working days before the start of construction of the Work.
4. A preconstruction conference shall be held prior to the start of construction of the Work.
5. Gravity sanitary sewer pipe materials for lines four (4) inches inside diameter and larger shall be:
 - a. ASTM D 3034 SDR 35 PVC pipe at depths of cover of three (3.0) feet to depths of to twenty (20.0) feet. Pipe depths outside this range will require use of pressure class PVC conforming to AWWA C900
 - b. Ductile iron pipe, class 52, shall be used only where required by the City. Ductile iron sewer pipe shall be provided with a hydrogen sulfide resistant internal coating.
6. Backfill for all sanitary sewer pipe and side sewers shall be as required by the City per Volume 2, Section 4.05 of the Engineering Standards.
8. Bedding for all sanitary sewer pipe and side sewers in the pipe zone shall be per Standard Specification, Section 9-03.9(3),
Crushed Surfacing Top Course.
9. Connections for side sewers (laterals) shall be Wyes for new sanitary sewers.
10. The ends of side sewers (laterals) shall be:
 - a. Back-filled only after City inspection and approval and Owner's Engineer or Surveyor has obtained record drawing information.
 - b. Marked with a 2"x4"x10' with a 14 gauge insulated copper wire at a 90 degree angle from the end of the lateral. The marker will extend at least three (3) feet above the finished ground surface. Two (2) feet of each end of the 2"x4"x10' shall be painted green. If the 2"x4" is not ten (10) feet long, the Contractor will mark the actual length on the 2"x4".
11. Manholes shall have all joints sealed with Infa-Shield "Seal Wrap" exterior seal system [eight (8) inch nominal width], or approved equal.
12. WhilyGIG Manhole Riser/Collar System shall be used in place of riser rings unless otherwise approved.
13. All testing shall be in accordance with the City's Engineering Standard.
 - a. At the preconstruction conference, the Contractor must state the private television inspection Subcontractor to be used. The private television inspection Subcontractor to be used must be approved by the City.
 - b. After approval of the construction by the City Inspector, the City Inspector requires a two (2) working day notice to schedule observing the television inspection Subcontractor's work.
14. The City Engineer may request that the owner's Engineer or Surveyor submit pre-paving record drawings prior to paving, testing and inspection.
15. All existing septic tanks will be decommissioned in accordance with SW Washington Health District, Uniform Plumbing Code and City requirements.
16. Record Drawings will be submitted to the City prior to project acceptance
17. Trench Compaction as required per City Standards, refer to Standard details G-1.2 and G-1.3. Additional compaction tests shall be required at all manholes and catch basins.

3/04/08 SCH

STANDARD SANITARY NOTES

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
G-4.1

STANDARD FORCE MAIN CONSTRUCTION NOTES:

1. All sanitary sewer construction will conform to the current City of Ridgefield Engineering Standards for Public Works Construction Specifications
2. All Work in the City right-of-way will conform to the requirements of the street cut utility permit.
3. Contractor shall contact the NW Utility Notification Center at 1-800-553-4344 at least two (2) working days before but not more than (10) ten working days before the start of construction of the Work.
4. A preconstruction conference shall be held prior to the start of construction of the Work which:
 - a. May be held at the construction site for single-family residences.
5. Pressure sanitary sewer pipe materials for lines four (4) inches inside diameter and larger shall be:
 - a. PVC per AWWA C-900 or HDPE SDR 11 with Ductile Iron Fittings per AWWA C111. Ductile iron fittings shall be lined with a hydrogen sulfide resistant material.
6. Pressure service line pipe for residential installations shall be:
 - a. Two (2) inch diameter schedule 40 polyvinyl chloride (PVC) for grinder pump systems
7. Connections for single-family residential pressure service lines shall be:
 - a. Two (2) inch by main diameter self-tapping PVC full circle stainless steel saddles for grinder pump systems on new force mains; and
 - b. The City shall inspect and approve all taps on all existing force mains. Note: A "Request for Tap" must be submitted by the Contractor, fees paid, and a two (2) working day notice be given to the City Inspector or City Engineer to allow inspection to be scheduled.
8. Backfill of all trenches in traveled areas (roads, driveways or parking lots) shall be imported granular material meeting or exceeding Standard Specification, Section 9-03.9(3) Crushed Surfacing Base Course or as required by the City Engineer, whichever is more restrictive. Compaction for backfill shall be at minimum 90% of the maximum density for the material as established by AASHTO T 180.
9. Bedding for all force mains and pressure service lines in the pipe zone shall be:
 - a. Standard Specification, Section 9-03.9(3) Crushed Surfacing Top Course.
10. A continuous toning wire shall be attached to the top of the pressure service line. The toning wire shall be 12 gauge insulated toning wire. The toning wire shall end in the valve box with a minimum of a one (1) foot coil of wire. The toning wire shall be tested for continuity prior to acceptance. All splices will be soldered a minimum of two (2) inches in length and encased with 3M Scotch #2200 vinyl mastic pads (3½" by 4½") or 3M Scotch 33 electrical tape and coated with Scotchkote electrical coating #1485 repeat process after first coating dries, or approved equal.
11. Locator tape shall be continuous three (3) inch wide green six (6) mil thick marked with three (3) inch high black letters every three (3) feet with "Warning - Buried Pressure Sewer". The locator tape shall be installed eighteen (18) inches above the force main.
12. The ends of pressure service lines shall be:
 - a. Per City Standard Detail S-3.11, and back-filled only after City inspection and approval.
13. All testing shall be in accordance with the City's Standard Specifications.
14. All existing septic tanks will be decommissioned in accordance with SW Washington Health District, Uniform Plumbing Code and City requirements.
15. Record Drawings will be submitted to the City prior to approval.

3/05/08 SCH

STANDARD FORCE MAIN CONSTRUCTION NOTES

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
G-4.2

GENERAL WATER NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE "CITY OF RIDGEFIELD ENGINEERING STANDARDS FOR PUBLIC WORKS CONSTRUCTION" AND THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND MUNICIPAL CONSTRUCTION" HERINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS" PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, EXCEPT AS NOTED HEREIN OR ON THE STANDARD PLANS. ALL REFERENCES TO AWWA AND/OR APWA SPECIFICATIONS SHALL MEAN THEIR LATEST REVISION.
2. ALL WATER LINE CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF RIDGEFIELD, PRIOR TO COVER. ALL TESTING SHALL BE APPROVED PRIOR TO PAVING. THE CONTRACTOR SHALL NOTIFY THE CITY DEVELOPMENT INSPECTOR AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO THE BEGINNING OF CONSTRUCTION.
3. ALL PIPES FURNISHED SHALL BE NEW, AND CONFORM TO THE REQUIREMENTS OF AWWA DI CL52.
4. A TRAFFIC CONTROL PLAN IS REQUIRED PRIOR TO CONSTRUCTION WITHIN A CITY RIGHT-OF-WAY.
5. WHERE EXISTING SERVICE MUST BE INTERRUPTED, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY AND NOTIFY ALL CUSTOMERS AFFECTED AS TO THE DATE AND DURATION OF THE INTERRUPTION. NOTIFICATION MUST BE DONE TWO (2) WORKING DAYS IN ADVANCE OF INTERRUPTION. THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION TO PROVIDE MINIMUM INTERRUPTION OF SERVICES AS DETERMINED BY THE INSPECTOR. UNDER NO CIRCUMSTANCES SHALL A CONTRACTOR SCHEDULE A WATER MAIN SHUT-DOWN WITHOUT THE REQUIRED 48 HOUR NOTICE. THE CONTRACTOR SHALL NOT OPERATE THE CITY'S WATER FACILITIES WITHOUT APPROVAL FROM THE CONSTRUCTION INSPECTOR.
6. WHEN EXTENDING AN EXISTING LINE THE CONTRACTOR IS REQUIRED TO INSTALL A VALVE AT THE END OF THE LINE IF ONE DOES NOT EXIST PRIOR TO MAKING A CONNECTION TO THE NEW LINE. THE VALVE MUST REMAIN CLOSED UNTIL THE NEW LINE HAS BEEN TESTED AND ACCEPTED BY THE CITY. AS AN ALTERNATIVE THE CONTRACTOR MAY CONSTRUCT AND TEST THE NEW LINE PRIOR TO MAKING THE FINAL CONNECTION TO THE EXISTING LINE. THE LINE MUST BE ACCEPTED BY THE CITY BEFORE MAKING THE FINAL CONNECTION.

WATER METERS:

7. ALL WATER METERS WILL BE FURNISHED AND INSTALLED BY THE CITY.

3/06/08 SCH

GENERAL WATER NOTES

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
G-5.1