



Skamania County
Department of Public Works

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Utility Guidelines Manual

Resolution No. 2010 – 15

Skamania County Policy for Accommodation of Utilities on County Road Right of Way

Specification Standards for Utility Work

Open Trench – Hard Surface Guidelines

Open Trench – Gravel/Native Surface Guidelines

Plowing Guidelines

Boring and/or Jacking Guidelines

March 2, 2010

SKAMANIA COUNTY POLICY FOR ACCOMODATION OF UTILITIES ON COUNTY ROAD RIGHT OF WAY

(Adopted by Resolution No. 2010-15 dated March 2, 2010)

1. PURPOSE

The purpose of this resolution is to modify a county policy to provide administrative and procedural guidance needed to accommodate the installation and relocation of all above and below ground utilities, which are located within the county road right-of-way.

2. APPLICATION

This policy shall apply to all new franchises and permits issued pursuant to RCW 80.32.010 and RCW 36.55.010, to all public and private utilities, and to all installation and relocation of utilities within the county road right-of-way, including but not limited to electric power, telephone, television, telegraph, communication, water, gas, all petroleum products, steam, chemicals, sewage, drainage, irrigation, and similar pipes, lines or cables.

This policy cannot address all situations and conditions that may be encountered. Specific provisions contained herein may not be appropriate for all locations and existing conditions. The



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policy is intended to assist, but not substitute for, competent work by both road and utility design and installation professionals. This policy is not intended to limit any innovative or creative effort which could result in better quality, better cost savings or improved safety characteristics.

It shall be the responsibility of any utility installing or relocating any of its facilities to ascertain and abide by the requirements and conditions of this policy.

3. DEFINITION OF TERMS

Unless otherwise stated, words and phrases used herein shall have the following meanings:

- a. Appurtenance - Equipment and/or accessories which are a necessary part of an operating utility system or subsystem.
- b. Backfill - replacement of excavated material with suitable material compacted as specified.
- c. Boring - Grade and alignment-controlled mechanical or other method of installing a pipe or casing under a road without disturbing the surrounding medium.
- d. Carrier - pipe directly enclosing a transmitted fluid or gas.
- e. Casing - a larger pipe enclosing a carrier for the purpose of providing structural or other protection to the carrier and/or to allow for carrier replacement without re-excavation, jacking or boring.
- f. Coating - protective material applied to the exterior of a pipe or conduit to prevent or reduce abrasion and/or corrosion damage.
- g. Conduit - an enclosed tubular runway for protecting wires or cables.
- h. Cover - depth to top of pipe, conduit, casing or gallery below the grade of a road or ditch.
- i. Drain - appurtenances to discharge accumulated liquids from casings or other enclosures.
- j. Encasement - structural element surrounding a pipe or conduit for the purpose of preventing future physical damage to the pipe or conduit.



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- k. Franchise - occupancy and use document granted by the county required for occupancy of road rights-of-way in accordance with RCW 36.55 and RCW 80.32.
- l. Gallery - underpass for two or more utility lines.
- m. Manhole - an opening in an underground utility system into which workers or others may enter for the purpose of making installations, inspections, repairs, connection, cleaning, and testing.
- n. Pavement - the combination of sub-base, base course, and surfacing placed on a sub-grade to support the traffic load and distribute it to the sub-grade.
- o. Permit - a document issued under the authority of 1) the County Engineer or Public Works Director; and/or 2) a franchise granted by the County's legislative authority. The permit provides specific requirements and conditions for specific utility work at specific locations within the right of way.
- p. Pipe - a structural tubular product designed, tested, and produced for the transmittance of specific liquids and gases under specific conditions.
- q. Plowing - direct burial of utility lines by means of a "plow" type mechanism, which breaks the ground, places the utility line at a predetermined depth, and closes the break in the ground.
- r. Pressure - internal gage pressure in a pipe in pounds per square inch, gage (psig).
- s. Private Lines - privately owned, operated and maintained utility facilities devoted exclusively to the use of the owner.
- t. Relocation - Planned change of location of an existing facility to a more advantageous place without changing the character or general physical nature of the facility.
- u. Replacement - Installation of a like element of the utility system or subsystem in the same or near-same physical location normally due to damage, wear or obsolescence of the element.
- v. Restoration - All work necessary to replace, repair or otherwise restore the right of way and all features contained within to the same or equal condition as before any change or construction thereto.



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- w. Right-of-way - A general term denoting public land, property, or interest therein, usually in a strip acquired for or devoted to transportation or secondary purposes.
- x. Road or Roadway - A general term denoting a street, road or other public way, including shoulders, designated for the purpose of vehicular traffic.
- y. Sleeve - Short casing through a pier, wall or abutment of a highway structure.
- z. Traffic Control - Those activities necessary to safeguard the general public, as well as all workers, during the construction and maintenance of utility facilities within the right of way.
- aa. Trenched - Installation of a utility in an open excavation.
- bb. Untrenched - Installation of a utility without breaking the ground or pavement surface such as by jacking or boring.
- cc. Vent - Appurtenance to discharge gaseous contaminants from casings or other enclosures.

4. GENERAL CONDITIONS AND REQUIREMENTS

A. LOCATION

- (1) Utility installations shall be located to minimize need for later adjustment to accommodate future roadway improvements and to permit access to servicing such installations with minimum interference to roadway traffic. Counties shall make available to utilities a copy of their annual and six-year transportation improvement program (or capital facilities and transportation plan where required,) in order to minimize both utility customer and road user inconvenience should future road improvements (on existing or new alignment) require adjustment or relocating of the utility facilities. Said utilities shall, within the limits of standard business practice, make available appropriate short and long-range development plans to the county.
- (2) Unless otherwise approved by the county, all above-ground utilities and their appurtenances as well as all above-ground appurtenances of below-ground utilities that may constitute a roadside obstacle for traffic using the road shall be located as close as practicable to the edge of the right-of-way line. If an appurtenance within the right-of-way would constitute an unacceptable roadside obstacle, said obstacle may be



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- (a) relocated to another place within the right-of-way,
 - (b) converted to a break-away design,
 - (c) crash-protected, or
 - (d) relocated to another location off the road right-of-way.
- (3) Installations that are required for a road purpose, such as street lighting or traffic signals, are to be located and designed in accordance with this policy.
- (4) Where existing facilities are in place, new facilities shall be compatible with the existing installations and conform to this policy as nearly as practicable.

B. DESIGN - GENERAL

- (1) The utility shall be responsible for the design of the utility facility being proposed. This responsibility shall include, in addition to the integrity of the proposed utility facility, provisions for public safety during the course of construction, as well as consideration of traffic safety and accident potential for the life of the installation.
- (2) For work requiring application to the county, the county may review and approve the utility's plans with respect to:
 - (a) location,
 - (b) the manner in which the utility facility is to be installed,
 - (c) measures to be taken to preserve safe and free flow of traffic,
 - (d) structural integrity of the roadway, bridge, or other structure,
 - (d) ease of future road maintenance, and appearance of the roadway.
- (3) Provision shall be made for known or planned expansion of the utility facilities, particularly those located underground or attached to bridge or other structures within the right of way.
- (4) Granting of a franchise or permit shall not imply or be construed to mean the county shall be responsible for the design, construction, or operation of the facility or for public safety during the facility's installation, operation, or maintenance.

C. STANDARDS AND CODES

All utility installations shall be designed in accordance with the standards, codes and regulations applicable to the type of utility. The methods of installation and materials used shall conform to the codes and standards promulgated by government and by the industry. This shall also include any road design standards, which the county shall deem



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necessary to provide adequate protection to the road, its safe operation, appearance and maintenance.

D. ADJUSTMENT AND RELOCATION OF EXISTING FACILITIES

- (1) Existing underground utilities on county road right of way may be removed or relocated when roadwork funded by the county would disturb the existing underground utility. All such removal or relocation shall be at the sole expense of the owning utility and all work must be accomplished by the same permitting process as for new installations. If the county requests said utility to relocate, the permit system will be waived. When a utility is planning for the future development by replacing underground in a construction area, the permit system shall be utilized.
- (2) Notwithstanding reinforcement or protection otherwise provided, a permittee shall be responsible for the security of each existing pipeline and utility within a road construction zone. Where there are unusual utility hazards or where heavy construction equipment will be used, the permittee shall provide adequate temporary protection. In replacing the roadway, the design should give due consideration to the protection of previously existing utilities in the roadway section without sacrificing the geometrics of roadway design.

5. PERMITS

A. GENERAL REQUIREMENTS

For work not authorized by franchise, comprehensive plan, or other agreement, a written permit may be required for occupancy of road right-of-way by all utility facilities, including private lines. No facility shall be used for other than the purpose stated, unless written approval is granted by the county.

B. SPECIFIC REQUIREMENTS

For all work within the County right-of-way, permit applications shall be submitted in a standard format as prescribed by the County.

Permit applications will be administered by Skamania County Public Works and assigned to Public Works Engineering for location and work method and to Skamania County Community Development to determine if any other permits applications are necessary due to regulatory or environmental requirements in the work area prior to Public Works issuing the permit.

The permit application shall include the following information



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- 1) Describe if the work is for replacement, repair or a new installation. Show the location of the work by road name and milepost.
- 2) Adequate exhibits depicting existing or proposed location of the facility in relation to the road, including right-of-way, easement lines, water bodies or other geographical conditions that may impact the work area; relationship to currently planned road revisions, if applicable; and all locations and situations for which deviations in depth of cover (including the proposed method of protection) or other locational standards are anticipated.
- 3) Agreement to all provisions in the permit conditions and to special conditions the county may deem appropriate for the work to be completed. An authorized employee of the Utility Company must sign the permit application agreeing to these conditions.

C. EMERGENCY PERMITTING

Emergency work is authorized as long as verbal or electronic notification is given to the County by the next working day. The standard specifications shall be followed.

Permit applications are required for all emergency work and shall be presented to Skamania County within 5 working days with a description of the emergency.

SPECIFIC REQUIREMENTS for permitting do not change due to an emergency repair and if required, additional work due to the location or type of the repair must be completed as directed on the Permit(s).

6. SPECIFIC REQUIREMENTS - UNDERGROUND UTILITIES

A. UNDERGROUND UTILITIES - LOCATION AND ALIGNMENT

- (1) For all crossings, the angle of crossing should be as near a right angle to the road centerline as practicable. However, lesser angles may be permitted based upon economic considerations of practical alternatives.
- (2) Where practicable, crossings should avoid deep cuts, footings of bridges and retaining walls, or locations where highway drainage would be affected.
- (3) Longitudinal installations should run parallel to the roadway and lie as near as practicable to the right-of-way line. Installations which cannot be so installed will be allowed within the right of way, provided that:



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- a. The installation will not adversely affect the design, construction, stability, structural integrity, traffic safety, or operation of the road facility; or
 - b. Failure to allow such installation will create an undue hardship or financial burden upon the utility.
- (4) Where irregularly shaped portions of the right of way extend beyond the normal right of way limits, a uniform alignment of facilities shall be allowed.

B. UNDERGROUND UTILITIES - COVER

The grade of and resulting cover for an underground utility shall be in compliance with applicable federal, state and county requirements unless otherwise specified.

C. UNDERGROUND UTILITIES - ENCASEMENT

- (1) Casings shall be installed for roadway crossings where required by appropriate industry code.
- (2) Casings may be required for the following conditions:
 - a. As an expediency in the insertion, removal, replacement, or maintenance of a carrier line crossing or other locations where it is necessary in order to avoid open trench construction.
 - b. As protection for carrier lines from external loads or shock either during or after construction of a road.
 - c. For jacked or bored installations of coated carrier lines unless assurance is provided to the county that there will be no damage to the protective coating.
- (3) Within the road right of way, where practicable, casing pipes shall extend beyond the toe of fill slopes, back of roadway ditch, or outside of curb.
- (4) Other than for necessary vents and/or drains, casing pipes shall be sealed at both ends.
- (5) Casing pipes shall be designed to support the load of the road and superimposed loads thereon and, as a minimum, shall equal the structural requirements for road



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drainage facilities. Casings shall be composed of materials of sufficient durability to withstand conditions to which they may normally be exposed.

D. UNDERGROUND UTILITIES - UNCASED CARRIERS

- (1) The carrier pipe shall conform to the material and design requirements of the appropriate utility industry and governmental codes and specifications.
- (2) The carrier pipe shall conform to the material and design requirements of the appropriate utility industry and governmental codes and specifications.

E. UNDERGROUND UTILITIES – APPURTENANCES

- (1) Vents shall be required for casings, tunnels and galleries

Vents shall be required for casings, tunnels and galleries enclosing carriers of fuel where required by federal safety standards. Vent standpipes should be located and constructed so as neither to interfere with maintenance of the road nor to be concealed by vegetation. Preferably standpipes should stand by a fence or on the right-of-way lines.

- (2) Drains shall be required for casings, tunnels, or galleries enclosing carriers of liquid, liquified gas, or heavy gas. Drains for carriers of hazardous materials shall be directed to natural or artificial holding areas to prevent the potential for surface or ground water contamination. Drains for which only water or other non-hazardous liquids may discharge may be directed into the roadway ditch or natural watercourse at locations approved by the county. The drain outfall shall not be used as a wasteway for routine purging of the carrier unless specifically authorized by the county.
- (3) Location markers and emergency information should be used when required by applicable state and federal standards.
- (4) Manholes should be designed and located in a manner that will cause the least interference to other utilities or future road expansion. Where practicable, installations in the pavement or shoulders should be avoided.

F. UNDERGROUND UTILITIES - INSTALLATION

Installations shall ensure safety of traffic and preservation of the roadway structure, and required construction shall, unless otherwise provided in the approved permit, be in accordance with the following controls:



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7. UNTRENCHED CONSTRUCTION

Untrenched construction may be required for pipelines crossing roads paved with asphalt concrete or cement concrete and for roads paved with bituminous surface treatment when directed by the county and be in accordance with the following controls.

8. UNDERGROUND UTILITIES - ONE CALL SYSTEM

Utility facilities shall be located and identified in accordance with Title 19 RCW, Chapter 19.122 in its entirety. (Washington State One Call System).

9. SPECIFIC REQUIREMENTS - OVERHEAD UTILITIES

A. POWER AND COMMUNICATION LINES

- (1) Single-pole construction and joint use of the pole is desirable and should be used whenever feasible.
- (2) The minimum vertical clearance for overhead power and communication lines above the road and the minimum lateral and vertical clearance from bridges shall be in compliance with the National Electrical Safety Code and Washington State Department of Labor and Industries "Electrical Construction Code."
- (3) Where irregularly shaped portions of the right-of-way extend beyond the normal right-of-way limits, a uniform alignment of facilities shall be allowed.
- (4) In areas adjacent to guardrail, a 3' minimum distance shall be maintained between the pole and the closest point of the guardrail structure.

10. AESTHETIC/SCENIC CONSIDERATIONS

- A. Utility installations shall be designed and constructed to minimize the adverse affect on existing roadside manmade or natural amenities. Special efforts shall be taken to minimize any potential negative impact on areas of scenic beauty (i.e., scenic strips, viewpoints, rest areas, recreation area, public parks or historic sites, etc.).



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- B. Overhead utility installations shall be permitted in areas of scenic beauty when other utility locations are not available, are not technically feasible, are unreasonably costly, or are less desirable from the standpoint of visual quality.
- C. If the utility intends to use herbicide to control or kill weeds and brush within the Right of Way, the county must grant prior approval and provide guidelines to the utility. The county may limit or restrict the types, amounts, and timing of applications if a significant negative impact on the aesthetics of the area is anticipated, provided such limitations or restrictions are not in conflict with State law governing utility right-of-way maintenance.
- D. Refuse and debris resulting from the installation or maintenance of the utility facilities shall be promptly removed once work is completed.

11. INSTALLATIONS ON ROADWAY BRIDGES AND STRUCTURES

Attachment of utility lines to a roadway structure (including bridges) may be allowed where such attachment conforms to sound engineering considerations for preserving the roadway structure and its safe operation, maintenance and appearance. The attachment shall be in accordance with the following:

- A. Attachment of a utility shall not be considered unless the structure in question is of a design that is adequate to support the additional load and can accommodate the utility facility without compromise of highway features, including reasonable ease of maintenance.
- B. Manholes and other utility access panels should be avoided within the roadway portion of the structure.
- C. Attachment on a structure of a pipeline carrying a hazardous transmittant shall be avoided where practicable.
- D. The utility attachment shall not reduce the clearance of a structure where such clearance is critical. Attachment to the outside of a structure should be avoided where there are reasonable alternative.
- E. Utility mountings shall be of a type, which shall not create noise resulting from vibration.



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- F. The hole created in a structure abutment shall be sleeved, shall be of the minimum size necessary to accommodate the utility line, and shall be sealed to prevent any leakage of water or backfill material.
- G. The utility line back of the abutment shall curve or angle out to align outside the roadbed area in as short a distance as is operationally practicable.
- H. Communication and electrical power line attachments shall be suitably insulated, grounded, and preferably carried in protective conduit or pipe from point of exit from the ground to re-entry. Carrier pipe and casing pipe shall be properly isolated from electric power line attachments.

12. MISCELLANEOUS PROVISIONS

A. Preservation, restoration and cleanup

- (1) The size of disturbed area necessary to install a utility shall be kept to a minimum.
- (2) Restoration methods shall be in accordance with the specifications of the county and/or special provisions of the franchise, permit, or agreement.
- (3) Unsatisfactory restoration work shall be promptly corrected by the utility. If necessary, unsatisfactory restoration work may be corrected by the county and billed to the utility.

B. Traffic control and public safety

- (1) Traffic controls, including detours for all utility work, shall conform to the currently applicable "Manual on Uniform Traffic Control Devices for Streets and Highway."
- (2) All construction and maintenance operations shall be planned to keep interference with traffic to a minimum. On heavily traveled roads, construction operations interfering with traffic should not be scheduled during periods of peak traffic flow. Work shall be planned so that closure of intersecting streets, road approaches, or other access points is held to a minimum.



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- (3) Adequate provision shall be made to safeguard any open excavation, and shall include barricades, lights, flaggers, or other protective devices as may be necessary.
- (4) The storage of materials on through roadways shall not be allowed, and parking of vehicles on roadways shall be kept to a minimum.
- (5) Above ground structures less than 60” in height shall not be placed within 50’ of any intersection without permanent markers securely placed at the location of the structure that exceeds this height requirement.

C. Emergency repairs

- (1) All utility facilities shall be kept in a good state of repair.
- (2) If emergency repairs to a utility disturb the traveled roadway the county shall be notified of the repair by the next working day. The restoration of the traveled roadway (including shoulders) after an emergency utility repair shall begin within 2 working days of the repair, unless the county approves a time extension.
- (3) If emergency repairs disturb the right of way, outside of the traveled way such repairs should be undertaken within 2 working days, unless the county approves a time extension. Approval as to the manner of final restoration of the right of way shall be secured from the county in a timely fashion.
- (4) It is the responsibility of the Utility Company to make sure that their contractor follows Skamania County Utility Standards during an emergency

Standard Specifications for Utility Work
Open Trench Method – Paved Surface

- 1) The utility company shall provide their contractor with a copy of the permit and Skamania County's Standard Utility Specifications Guidelines. Work shall not be started until these items are on the job site.



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- 2) The contractor shall administer all required Best Management Practices according to Washington State Department of Ecology Guidelines for Western Washington Storm Water Control from the project site and to provide for the removal of such requirements once regulations allow for their removal.
- 3) All other necessary permits, i.e., Scenic or HPA's, are the responsibility of the utility company.
- 4) The contractor shall provide certified traffic control, signing and all other traffic control devices required, according to the M.U.T.C.D., for the "Maintenance and Protection of Traffic."
- 5) All work shall be in accordance with the Washington State Department of Labor and Industries, Safety Standards for Construction Work, Part N, Excavation, Trenching and Shoring.
- 6) Asphalt Concrete or concrete shall be cut with asphalt or concrete cutting saws.
- 7) Remove all asphalt from job site, none shall be allowed as back fill. All asphalt products shall be disposed of using regulated requirements.
- 8) Excavated material shall not be placed on the paved driving surface during the excavation of the trench. All excavated materials tracked or dropped onto the roadway surface shall be swept or washed off daily.
- 9) All excavations will require Controlled Density Fill (CDF). Pipe bedding with compaction is allowed to a maximum of 6" above the pipe.
- 10) Crushed rock shall be placed as listed: Base rock shall be 0.75' of 1 ¼ - 0" crushed rock and shall be compacted the same as all other backfill materials. Top rock shall be 0.25' of ¾ - 0" crushed rock. All rock shall meet Washington State Specifications according to Section 9.03 of current year WSDOT Construction Manual.
- 11) Utility cuts shall not be left open overnight without barricades and operational lights attached. No open ditches allowed overnight in the traveled way. Anchored steel plates will be authorized for the duration of the project. Warning signs with lights shall be in place any time steel plates are being used.
- 12) Maintenance of steel plates shall include the maintenance of traffic control devices until surfacing can be completed. If asphalt concrete cannot be replaced within one week after completion of back fill, utility company shall contact Skamania County with a tentative date of completion.
- 13) Sidewalk or utility strip cuts shall be backfilled to the finished elevation to prevent trip hazards for pedestrians. Concrete repairs shall be replaced the same depth and design as adjacent sidewalks. Asphalt utility strips shall be constructed to the same depths as existing asphalt.
- 14) All loose material shall be swept or washed off the roadway surface prior to patching. All oversized material (over 3") that was exposed during excavation, shall be removed from the job site upon completion. All disturbed areas outside of the shoulders shall be seeded with grass and mulch that is certified weed free.



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- 15) Paving prep shall include; CDF or crushed rock floor shall be uniform in depth to ensure even compaction of asphalt being placed. If "working" cut of the asphalt has been chipped or rolled over, asphalt edges shall be saw cut back from the original "working" cut, (6" minimum, each side), cleaned and a tack coat applied, preferably CSS-1, prior to placing the new asphalt concrete pavement. A 2" minimum depth of Asphalt Concrete Pavement, or the same depth as adjacent mat being placed, whichever is greater. All lifts shall be compacted in 2" lifts. Compaction on the final lift shall be completed with both edges being "pinched" in two separated passes. Rolling patch by straddling new asphalt with steel wheels riding on both sides of adjacent asphalt shall not be permitted. All asphalt patches and joints shall be sealed with an asphalt emulsion and sand after patch has been completed.
- 16) Contractor shall call Skamania County and notify the Department of Public Works at (509) 427-3910 when the work is scheduled to start and again when it is ready for final inspection.

Utility company will be responsible for finished work and repair any deficiencies for a period up to one year after completion. Skamania County will notify the responsible utility company of any such deficiencies and require the utility work to be repaired within 2 working days, if not, Skamania County will repair the deficiency and bill the utility company in violation.



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Standard Specifications for Utility Work Open Trench Method – Gravel/Native Surface

- 1) The utility company shall provide their contractor with a copy of the permit and Skamania County's Standard Utility Specifications Guidelines. Work shall not be started until these items are on the job site.
- 2) The contractor shall administer all required Best Management Practices according to Washington State Department of Ecology Guidelines for Western Washington Storm Water Control from the project site and to provide for the removal of such requirements once regulations allow for their removal.
- 3) All other necessary permits, i.e., Scenic or HPA's, are the responsibility of the Utility Company.
- 4) The contractor shall provide certified traffic control, signing and all other traffic control devices required, according to the M.U.T.C.D., for the "Maintenance and Protection of Traffic."
- 5) All work shall be in accordance with the Washington State Department of Labor and Industries, Safety Standards for Construction Work, Part N, Excavation, Trenching and Shoring.
- 6) No material shall be placed on the paved surface during excavation or during the backfill process. Use either the backside of the ditch or direct fill into or from a dump truck. Any mud or debris tracked or dropped on the roadway shall be removed, swept, or washed off of the surface daily.
- 7) Replace materials in 6" lifts, using a rammer-type compactor on each lift. Rubber tire rolling or a backhoe bucket will not be suitable.
- 8) There shall be no structures, i.e., manholes, water or gas valves allowed in the graveled shoulder section adjacent to asphalt pavement. If the utility cannot meet this requirement, the shoulder shall require the placement of asphalt concrete paving to allow a taper out to the structure and back to the adjacent pavement as required on the Utility Permit.
- 9) Crushed rock shall be placed as listed: Base coarse shall be .75' of 1 1/4" – 0" crushed rock and shall be compacted the same as all other backfill materials. Top coarse shall be 0.25' of 3/4" - 0" crushed rock. (Not required if outside of graveled section.)
- 10) No utility contractor shall leave a trench open overnight without barricades and operational lights attached. Skamania County may request steel plates to cover the work area for traffic safety.
- 11) Any oversized material (over 3") that remains on the surface shall be removed from the job site upon completion. All disturbed areas outside of the gravel surfaces shall be seeded with grass seed and mulch that is certified weed free.



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- 12) Contractor shall call Skamania County and notify the Department of Public Works at (509) 427-3910 when the work is to start and again when it is ready for final inspection.

Utility company will be responsible for finished work and repair of any deficiencies for a period up to one year after completion. Skamania County will notify the responsible utility company of any such deficiencies and require the utility work to be repaired within 2 working days, if not, Skamania County will repair the deficiency and bill the utility company in violation.

STANDARD SPECIFICATIONS FOR UTILITY WORK
PLOWING GUIDELINES

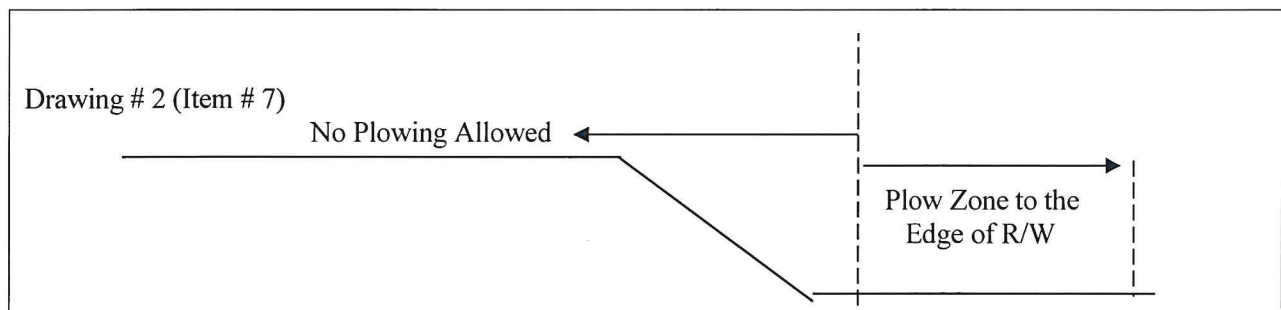
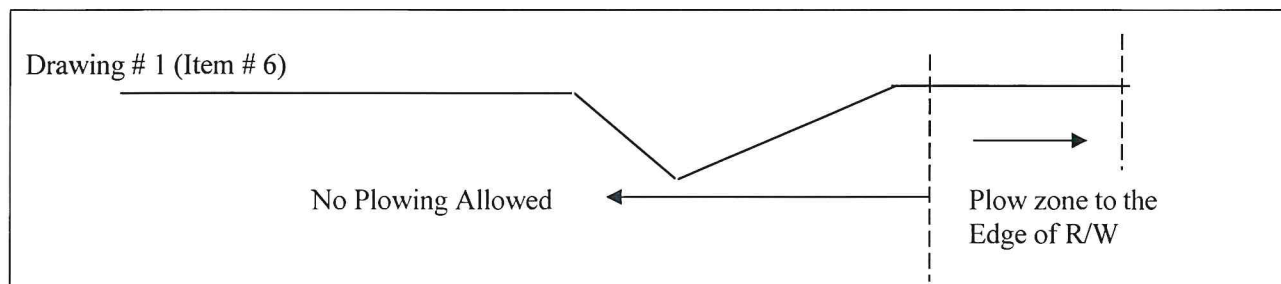
- 1) The utility company shall provide their contractor with a copy of the permit and Skamania County's Standard Utility Specifications Guidelines. Work shall not be started until these items are on the job site.
- 2) The contractor shall administer all required Best Management Practices according to Washington State Department of Ecology Guidelines for Western Washington Storm Water Control from the project site and to provide for the removal of such requirements once regulations allow for their removal.
- 3) All other necessary permits, i.e., Scenic or HPA's, are the responsibility of the Utility Company.
- 4) The contractor shall provide certified traffic control, signing and all other traffic control devices required, according to the M.U.T.C.D., for the "Maintenance and Protection of Traffic."
- 5) Plowing is allowed in the areas defined in Drawing #'s 1 and 2. (No Exceptions)
- 6) Plowing shall be allowed from 12" beyond of the top of back slope to the edge of the right of way. (Drawing # 1)
- 7) Plowing shall be allowed from 12" beyond of the toe of the fill slope to the edge of the right of way. (Drawing # 2)
- 8) Compaction of disturbed area is required and method shall be shown on the permit application. Issuance of the final permit shall be based on Skamania County's determination if compaction method is acceptable. Failure to provide compaction will cancel the plowing permit and open trenching standards shall be required.
- 9) All features shall be restored to original condition, for example, removal of any rocks over 3", brought to the surface by the plowing operation, backfill any depressions and contour the surface back to the surrounding landscape. All disturbed surfaces shall be seeded with grass and mulch that is certified weed free.
- 10) If plowing cannot be accomplished by these standards, the utility company/contractor shall notify Skamania County and then will be allowed to follow the gravel or hard surface standards for open trenching.
- 11) Contractor shall notify Skamania County Department of Public Works at (509) 427-3910, when the work will start and again when it is ready for final inspection.



Skamania County Department of Public Works

Post Office Box 1009
170 NW Vancouver Ave
Stevenson, Washington 93645
Office (509) 427-3910
publicworks@co.skamania.wa.us

Utility company will be responsible for finished work and repair of any deficiencies for a period up to one year after completion. Skamania County will notify the responsible utility company of any such deficiencies and require the utility work to be repaired within 2 working days, if not, Skamania County will repair the deficiency and bill the utility company in violation.



STANDARD SPECIFICATIONS FOR UTILITY WORK **BORING AND/OR JACKING GUIDELINES**

- 1) The utility company shall provide their contractor with a copy of the permit and Skamania County's Standard Utility Specifications Guidelines. Work shall not be started until these items are on the job site.
- 2) The contractor shall administer all required Best Management Practices according to Washington State Department of Ecology Guidelines from the Western Washington Storm Water manual for the project site and to provide for the removal of such requirements once regulations allow for their removal.
- 3) All other necessary permits, i.e., Scenic or HPA's, are the responsibility of the Utility Company.
- 4) The contractor shall provide certified traffic control, signing and all other traffic control devices required, according to the M.U.T.C.D., for the "Maintenance and Protection of Traffic."
- 5) All work shall be in accordance with the Washington State Department of Labor and Industries, Safety Standards for Construction Work, Part N, Excavation, Trenching and Shoring.
- 6) No material shall be placed on the paved or gravel surface during excavation or during the backfill process. Use either the backside of the ditch or direct fill into or from a dump truck.



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- 7) The boring and jacking operations shall be done simultaneously with continuous installation, until the casing pipe is in final position. Correct line and grade shall be carefully maintained. Add-on sections of casing pipe shall be full-ring butt welded to the preceding length developing watertight total pipe strength joints. The casing installation shall produce no upheaval, settlement, cracking, movement or distortion of the existing roadbed or other facilities.
- 8) Casing pipe holes shall be mechanically bored through the soil by a cutting head on a continuous auger mounted inside the pipe. The auger shall extend a minimum distance beyond the end of the pipe casing to precluded formation of voids outside of the pipe shell.
- 9) The casing pipe shall be adequately protected to prevent crushing or other damage under jacking pressure.
- 10) Required boring and jacking pits or shafts shall be excavated and maintained to the minimum dimension. Said excavations shall be adequately barricaded, sheeted, braced as required. The distance between the edges of the jacking pit and the pavement is six (6) feet minimum.
- 11) Carrier pipes shall be supported as required by the utility company within the casing pipe.
- 12) Any deviation in the roadway surface created from this operation shall require the removal of all affected materials and repaired utilizing Skamania County's Utility Standards for open trench method for paved surfaces.
- 13) Replace materials into jacking pit in 6" lifts, using a rammer-type compactor on each lift to 90% maximum density. Rubber tire rolling or a backhoe bucket will not be suitable.
- 14) Crushed rock shall be placed as listed: Base coarse shall be .75' of 1 1/4" - 0" crushed rock and shall be compacted the same as all other backfill materials. Top coarse shall be 0.25' of 3/4" - 0" crushed rock. (Not required if outside of graveled section.)
- 15) Any oversized material (over 3") that remains on the surface shall be removed from the job site upon completion. All disturbed areas outside of the gravel surfaces shall be seeded with grass seed and mulch that is certified weed free.
- 16) Contractor shall call Skamania County and notify the Department of Public Works at (509) 427-3910 when the work is to start and again when it is ready for final inspection.
- 17) Utility company will be responsible for finished work and repair of any deficiencies for a period up to one year after completion.
- 18) Skamania County will notify the responsible utility company of any such deficiencies and require the utility work to be repaired within 2 working days, if not, Skamania County will repair the deficiency and bill the utility company in violation.

We the undersigned acknowledge and understand these guidelines and will complete the work with-in the permitted area according to Skamania County's Utility Guidelines; or the Standard Specification Guidelines set forth by Washington State Dept. of Transportation, if not listed in our guidelines.

