



Pierce County
Public Works

Manual on
Accommodating Utilities
in Pierce County Rights-of-Way

5th Edition

Prepared by
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Manual
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Information Sheet

Pierce County Public Works

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Schedule A
Utility Right-of-Way Work Classification and Fee Structure

Work Class	Permit Required	Notify Required	Fees	Criteria
A	No	No	None	<ul style="list-style-type: none"> • No breaking of any curb or sidewalk • Stringing cables on utility poles • Accessing existing manholes, handholes, and vaults • Trimming trees
B	Non-UGS: Yes UGS: Notification	Yes	<u>Permit Fees:</u> Non-UGS: \$300 UGS: Exempt	<ul style="list-style-type: none"> • Raising valves • Installing or trenching less than 100 LF within right-of-way • Making an initial cut of less than 15 SF of pavement • Removing two or fewer panels of CC sidewalk and associated curb and gutter • Pushing under a road • Installing underground vaults • Constructing splice pits
C	Yes	Yes	100 LF to 500 LF 15 SF to 150 SF <u>Permit Fees:</u> Non-UGS: \$900 UGS: \$150 Greater than 500 LF or 150 SF <u>Permit Fees:</u> Non-UGS: \$3,000 UGS: \$500 Side Sewer \$150 Sewer Line Ext. \$500	<ul style="list-style-type: none"> • Installing 100 LF or more within right-of-way • Making an initial cut of 15 SF or more of pavement • Removing more than two panels of CC sidewalk and associated curb and gutter • Constructing any CRP-related work including aerial work • Potholing in the pavement • Attaching any utility to a bridge structure • Open cut road crossing
D	Yes	Yes	<u>Permit Fees:</u> Non-UGS: \$900 UGS: \$150	<ul style="list-style-type: none"> • Remove, replace or relocate any utility poles; installation of new poles where none currently exist; permit area not to exceed an area of 1 mile in diameter.

UGS: Utilities in Good Standing
 A franchise fee for all utilities is required per Pierce County Code Title 12.32.070: \$1,000 plus advertising, review, processing, and publication costs

Any utility performing work as a result of a County construction or maintenance project shall be exempt from any applicable permit fee.

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Chapter 1

INTRODUCTION

1-1 General

This document provides the requirements and conditions of Pierce County’s policy regarding the accommodation of utilities in County rights-of-way. It presents administrative, procedural, and technical guidance for the installation, replacement, adjustment, relocation, and maintenance of all above- and below-ground utilities located within the County rights-of-way. The accommodation of utilities in County rights-of-way shall place primary emphasis on the following:

- Transportation operation and safety.
- Maintaining the structural integrity of the transportation facility.
- Preserving the aesthetic value of the facility elements.
- Protecting the public’s investment in the roadway infrastructure and associated facilities.
- Protecting the public’s investment in sanitary sewer infrastructure and associated facilities.
- Protecting the public’s investment in stormwater infrastructure and associated facilities.
- Accommodating development or improvement of the County rights-of-way.

1-2 Definitions

Coordination	Mutual understanding of work scope and schedule between all parties throughout the utility relocation activities. This applies to Preliminary, Final, and Construction Engineering phases. Utilities shall maintain direct contact with the Department.
County	Pierce County
Department	Pierce County Public Works, Office of the County Engineer Division
Document	<i>Manual on Accommodating Utilities in Pierce County Rights-of-Way</i>
Engineer	County Engineer or an authorized representative
Utility	<ol style="list-style-type: none">(1) A privately, publicly, or cooperatively-owned line, facility, or system for producing, transmitting, or distributing communications, cable television, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, sanitary sewer, storm drainage, surface water drainage, or any other similar commodity which directly or indirectly serves the public.(2) The privately, publicly, or cooperatively-owned company that owns the line, facility, or system.
Utility Relocation Plans	A three-dimensional drawing and/or table including a written narrative indicating the revised position of each utility element providing sufficient detail to determine that all known conflicts will be resolved.

Other definitions are contained in Appendix A.

1-3 Document Application

This document shall apply to all franchises and permits issued to all public and private utilities pursuant to the *Revised Code of Washington* (RCW) 36.55, 80.32.010, and 80.36.040 (see Appendix E), including water supply and irrigation lines; gas, oil, and petroleum products pipelines; overhead and underground power and communications lines; special conduits or tunnels; roadway lighting; and traffic signal conduits. It is the responsibility of any utility desiring to install, replace, adjust, relocate, or maintain any of its facilities, to ascertain and abide by the requirements and conditions of this document prior to commencing any work within County rights-of-way.

When the provisions contained herein are not appropriate for a particular location, situation or condition, the latest editions of the *Standard Specifications* and *Standard Plans for Road, Bridge, and Municipal Construction*, as published by WSDOT; the *Manual on Design Guidelines and Specifications for Road and Bridge Construction in Pierce County*; and *Pierce County Standard Drawings* shall provide guidance to the Department and the utility. These document is intended to assist, but not substitute for, competent work by both road and utility design and installation professionals. Utilities are encouraged to present alternatives to the Department that could result in greater quality, lower cost, or better safety.

Prior to approving any amendment to this document, the County Engineer will notify all utilities and provide an opportunity for comment on the proposed amendments.

1-4 Legal References

The following governmental codes establish the County’s right to grant utility franchises, outline the County’s franchising procedures, and establish guidelines for accommodating utilities.

Table 1 Governmental Code References		
Code	Title of Code	Description
RCW 19.122	Underground Utilities	Assigns responsibilities for protecting and repairing damage to existing underground facilities and protecting the public health and safety.
RCW 36.55	Franchises on Roads and Bridges	Establishes legal basis for county councils to grant a franchise to use county rights-of-way for the construction and maintenance of utilities.
RCW 36.87.140	Retention of Easement for Public Utilities	Establishes the legal basis for counties to retain an easement for public utilities when authorizing a vacation.
RCW 80.32.010	Electric Transmission Line Franchises	Establishes the legal basis for franchise of electric transmission lines.
RCW 80.36.040	Telecommunication Lines	Establishes the right to construct telecommunication lines along public right-of-way.
WAC 136.40	Accommodation of Utilities	Outlines standards of good practice for county road departments with regard to the accommodation of utilities on county rights-of-way.
WAC 332.120	Survey Monuments	Information related to Survey Monument Restoration.
PCC 11.05	Definitions	Information related to Illicit Stormwater Discharges.
PCC 12.32	Utility Right-of-Way Franchises	Establishes right-of-way franchise procedures within Pierce County for public and private utilities, and permit fee structure, permit fees and exemptions.
PCC 12.34	Telecommunication Users of Pierce County Rights-of-Way	Establish a local policy concerning telecommunications providers and services.
PCC 17A.10.070	Site Development Plans	Establishes stormwater requirements.
PCC 17B.10.060-.080	Standards Adopted	Establishes the policy on the accommodation of utilities on County road right-of-way in Pierce County. It refers to this document that provides the administrative and procedural guidance for accommodating utilities in Pierce County rights-of-way.
MAP-21 Sec 1518 23 CFR 635.410 23 USC 313	Buy America Provisions Buy America Requirement Buy America	Establishes requirements for Buy America provisions related to installation and relocation of utility facilities on County projects utilizing federal funds.

1-5 Utility Designated Contact

Public Works will maintain a database of all franchised utilities. It is the responsibility of the utility to notify the Public Works’ office whenever contact people change.

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Chapter 2

POLICIES AND GENERAL PROVISIONS

2-1 Planning

2-1.1 County Planning

2-1.1.1 General

The Department's planning policies and objectives can provide opportunities to preserve right-of-way for utilities. However, the principal intent of Departmental right-of-way planning is to preserve right-of-way for future travel needs. The following objectives are addressed in the *Transportation Element* of the *Pierce County Comprehensive Plan*, dated November 1994 and subsequent updates.

2-1.1.2 Utility and Transportation Corridors

The *Transportation Element* addresses utilities with Objective 5.5, which states:

“Pierce County coordinates the location of major utility and transportation corridors and the construction of roadway and utility improvement projects with utility companies/providers in order to minimize right-of-way disruptions caused by construction; minimize costs; and maintain pavement integrity.”

2-1.1.3 Right-of-Way Locations

The identification of right-of-way needs, which is of particular importance to utilities, is addressed in Objective 5.6. It states:

“Pierce County uses the transportation planning process to identify transportation system needs throughout the County in order to provide adequate transportation facilities and services to meet current and future travel needs; identify specific transportation corridors and alignments where public roads are needed; and locate and protect needed right-of-ways as soon as possible.”

2-1.2 Utility Planning

2-1.2.1 General

Utility installations shall be located to minimize the need for later adjustment to accommodate future roadway improvements and to permit access to servicing such installations with minimum interference to roadway traffic. The utility shall review long-range County road improvement plans in order to locate the utility to minimize both utility customer and road user inconvenience should future road improvements on an existing or new alignment require adjustment or relocating of the utility. The County's involvement will be limited to supplying planning documents and other information but will not include plan review. See Section 4-1 for a list of planning documents available.

2-1.2.2 Accommodation

Currently, in Pierce County, utilities with a valid franchise are allowed in the right-of-way subject to the approval of the County Engineer. When taking into account utility placement location, consideration will be given to those projects that are actually in the Planning and Preliminary Engineering phase. It is the responsibility of the utilities to coordinate with other utilities, purchase right-of-way, or acquire private easements, where space is limited.

2-1.2.3 Location Guidelines

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.

2-1.2.4 Relocation

Within 30 calendar days, or such longer period as may be specified by the Engineer, following written notice from the County Engineer, a utility shall, at its own expense, temporarily or permanently remove, relocate, change or alter the position of any facilities within the right-of-way whenever the County Engineer shall have determined that such removal, relocations, change or alteration is reasonably necessary for:

- The construction, repair, maintenance, or installation of any County or other public improvement in or upon the right-of-way.
- The operations of the County or other governmental entity in or upon the right-of-way.
- Interference of a utility's facilities with proposed roadwork when it is not practical to adjust the proposed design.
- Enhancement of safety as requested by the County.

A utility is not required to relocate when their facility does not interfere with construction, such as may occur with overlay projects or shoulder paving. The utility may choose to keep its facility in place or relocate it. However, this may require the utility to provide temporary support and/or safety protection. With either choice, the utility must abide by the policies, procedures, and standards of this document. Each utility is responsible for the cost of relocation and/or temporary protection of their facilities including the final adjustments of utility lids or covers within the right-of-way. For cases of major County road construction, the Engineer will provide adequate advance notice of relocation requirements through the utility coordination schedule (see Chapter 4). The utility is required to relocate its facility in a timely manner consistent with the construction schedule.

2-1.2.5 Design

The utility is responsible for the design of the utility facility being proposed. This design, in addition to the integrity of the proposed utility facility, shall include provisions for public safety during the course of construction as well as full consideration of traffic safety and traffic accident potential for the life of the installation. The design shall minimize disturbance to the roadway both during and after construction, and will comply with applicable environmental and erosion control regulations. The design shall also include implementation of applicable abbreviated erosion and sediment control plan features as detailed in the *Pierce County Site Development Manual*, as well as full compliance with PCC 11.05 for the life of the installation.

In the case of proposed attachment to existing bridges and structures, the utility is responsible for submitting engineering information, including all engineering calculations, to the Engineer concerning the bridge's or structure's ability to carry the additional load. The Engineer will review all submitted information and make a final determination regarding the utility's request. The Engineer will establish all design and construction parameters for this work.

2-1.2.6 Maintenance

All utility facilities shall be kept in a good state of repair both structurally and in appearance. All maintenance operations shall be carried out in a manner consistent with all applicable laws, rules, regulations and County ordinances.

The utility is responsible for the safety of their facilities located within Pierce County rights-of-way.

2-2 Installation

2-2.1 General

The size of the disturbed area necessary to install a utility shall be kept to a minimum.

2-2.2 Standards

2-2.2.1 General

All utility installations shall be designed in accordance with the industry standards, codes, and regulations applicable to the type of utility including applicable environmental and erosion control regulations. The methods of installation and materials used shall conform to the codes and standards promulgated by government and industry when feasible. This includes the policies, procedures, practices, and standards presented in this document and any road design standards that the Engineer deems necessary to provide adequate protection to the road and its safe operation, appearance, and maintenance. However, existing utilities will not need to be adjusted solely because of a change in County standards or practices.

2-2.2.2 Deviations

Deviations from these policies, procedures, and practices may be granted by the Engineer upon evidence that such deviations are in the public interest, that they are based upon sound engineering judgment, and that requirements for safety, function, appearance, and maintainability are fully met. A deviation to this document can be authorized only by the Engineer upon submittal of additional information, plans, and/or design data by a professional civil engineer, when required by the Engineer, showing that the requested deviation is justified and in the public interest as determined by the Engineer.

2-2.3 Pavement Cutting

All new pavement types and surfacing treatments shall not be cut unless otherwise approved by the County Engineer. New pavement types are typically pavements that have been placed within 5 years, but in some instances may include pavement types that have been placed beyond a period of 5 years. For a County road project, the time period will begin on the date the project is considered to be substantially complete. Information on which roads have been recently constructed or resurfaced may be obtained from the Public GIS on the Pierce County website or from the Engineer upon request. Un-trenched construction techniques such as pushing, jacking, or boring shall be explored on all new or existing pavement road crossings. Except for work performed under emergency conditions, or as a result of a County construction or maintenance project, an additional permit fee may be charged for pavement cutting during the 5-year period. Pavement cutting wastes must not be discharged into the municipal storm drainage system pursuant to PCC 11.05.

2-2.4 Drainage

Care shall be taken in utility installations to avoid disturbing or harming existing drainage facilities or causing or contributing to violations of the Pierce County Stormwater National Pollutant Discharge Elimination System (NPDES) permit. Utility work within the County right-of-way is exempt from obtaining a Sight Development Permit in accordance with Pierce County Code 17A.10.070. However, all utility work within the County right-of-way must meet all stormwater requirements included in the *Pierce County Stormwater Management and Site Development Manual*. Underground utility facilities shall be backfilled with pervious materials and outlets provided for entrapped water. Underdrains shall be provided where necessary. When a utility is installed within or in close proximity to existing drainage facilities, the utility may be required to install temporary or permanent erosion control BMPs. Temporary BMPs must be maintained by the utility until final work site stabilization is achieved. Any underground utility located within the ditch shall be installed at least 36 inches below the flowline of the ditch except as provided in Subsection 5-2.1. All material and installation must be approved by the Engineer.

2-2.5 Monuments

The Utility is responsible for the care of any and all existing survey monuments, (see Appendix A—Glossary, for definition) that may be disturbed, removed, or covered during the installation of the utility.

A professional land surveyor licensed in the state of Washington shall verify that he/she has researched, recovered, and referenced any and all survey monuments that may possibly be disturbed by the Contractor. Any survey monument being disturbed, removed, or covered shall have due care in accordance with Chapter 332-120 WAC, “Survey Monuments--Removal or Destruction.” (See Appendix F—Monument Preservation Documentation and Certification). All restoration work shall include adjusting to finished grade all existing monuments located within the project limits, in accordance with Pierce County Standard Plan, PC.H1, (see Appendix C--Standard Drawings).

The Pierce County Public Works, Field Engineering Section, Survey, will assist with the location and marking of all known survey monuments in the project limits, if notified in a timely manner. Such assistance does not negate any liability of the Utility for the restoration of said monuments. The Utility shall be required to coordinate the locating and marking work with PC Survey.

2-2.6 Emergencies

Emergency repairs shall follow the procedures in Subsection 3-2.3.

2-2.7 Contractor Requirements

All work performed within County rights-of-way by contract must be performed by a contractor licensed, bonded, and insured in accordance with County and state requirements.

2-3 Traffic

All traffic and pedestrian controls shall conform to the currently applicable *Manual on Uniform Traffic Control Devices* (MUTCD). This includes detours for all utility work, including maintenance work. A Traffic Control Plan, including detour route when applicable, shall be submitted with the permit application.

Adequate provision shall be made to safeguard any open excavation including providing barricades, lights, flaggers, or other protective devices as may be necessary.

All construction and maintenance operations shall be planned to keep interference with vehicular and pedestrian traffic to an absolute minimum. On heavily traveled roads, the utility shall not allow construction operations to interfere with traffic during periods of peak traffic flow. Work shall be planned so that closures of intersecting streets, road approaches, or other access points are held to a minimum.

If a road closure is required to perform the work, a Permit for Temporary Road Closure must be acquired by the Franchise Holder or authorized representative and approved prior to commencement of the work. This permit can be obtained from the Department.

2-4 Right-of-Way Occupation

During nonworking hours, the project site is to be left in a manner which is safe and protected from the public traveling the right-of-way. Equipment and materials are not allowed in the right-of-way unless they are placed in a safe location or protected by permanent guardrails, lighted barricades or temporary concrete barriers. The use of temporary concrete barriers in the right-of-way is permitted only if the Engineer approves the installation and location.

During actual work hours, unless protected as described above, only material or equipment absolutely necessary for construction is allowed in the roadway. The contractor's and employees' nonessential vehicles are not permitted within the project right-of-way limits at any time unless they are located as described above. Any open excavation shall be plated or backfilled when unattended.

2-5 Cleanup and Restoration

Unless otherwise approved by the Engineer, utilities shall comply with the following provisions:

1. Restoration methods shall be in accordance with the specifications of this document and with the special provisions of the permit or franchise.
2. Unsatisfactory restoration work shall be redone promptly by the utility. This includes immediately replacing any failed patches with at least temporary patches. If necessary, unsatisfactory work may be redone by the County or the County's agent and billed to the utility.
3. Cleanup of excavation and debris material shall be accomplished concurrently with the burying operation, whether by plowing or trenching. At no time shall debris and excavation materials extend along a line for more than 500 feet.
4. All work shall be completed within the approved working days authorized on the permit. This includes removing replaced or abandoned utility poles from the right-of-way, complete cleanup of the work site and at least temporary pavement restoration.
5. Any temporary restorations shall be made permanent within 30 working days from the date of the temporary restoration.
6. All final restoration work shall be guaranteed by the utility for a period of one year from the date of final acceptance.
7. All abandoned above-ground facilities shall be removed from the right-of-way in accordance with the applicable permit. The above-ground facility shall be considered to be abandoned upon completion of the permitted work by the electrical utility.
8. Utilities that disrupt Pierce Transit facilities shall perform restoration according to Pierce Transit's requirements.

2-6 Permitting

2-6.1 General

Depending on the type of work and the standing of the utility (see Section 2-8), a Utility Right-of-Way Permit may be required for a utility to work in County rights-of-way. For the purposes of permitting and allocating fees, utility work is divided into four classifications.

All permits for the operation, maintenance, repair or construction of a Utility's facility within the County road right-of-way shall be applied for and given in the name of the Utility and must be acquired by the Franchise Holder or authorized representative. The Utility will be responsible for all work done under the permit, including, but not limited to, paving, patching, grading, and any other reasonably necessary repair or restoration to the road right-of-way. The Utility remains responsible whether the work is done by the Utility, its contractors, or by third parties.

2-6.2 Class A Work

Class A work has little or no effect on the right-of-way. Some examples of Class A work include: stringing cables on utility poles; accessing existing manholes, handholes and vaults; trimming trees; providing cathodic protection; replacing above-ground meters, transformers, closures and pedestals; using existing conduit across and along right-of-way; and installing water sampling stations.

No breaking of any concrete cement (CC) curb, gutter, or sidewalk is allowed. No Utility Right-of-Way Permit or notification is required for Class A work. However, proper traffic control devices must be used and any disturbance to the right-of-way must be repaired promptly.

2-6.3 Class B Work

Class B work has a moderate effect on the right-of-way and includes such work as installation of less than 100 linear feet of underground utility within the right-of-way, making an initial pavement cut of less than 15 square feet, removing 2 or fewer panels of CC sidewalk and associated curb and gutter.

Some examples of Class B work include: installing short side utility services while disturbing less than 15 square feet of pavement, raising valve boxes, pushing under a road, installing underground vaults, and constructing splice pits.

Non-UGS utilities are required to obtain a Permit for this type of work while UGS utilities are not. However, UGS utilities must provide written notification before starting any Class B work. The maximum length of time allowed for a Class B permit is 30 calendar days. One renewal of a Class B permit for an additional 30 days is allowed.

2-6.4 Class C Work

Class C work has a major impact on the right-of-way and includes such work as constructing any CRP-related work, installation of 100 linear feet or more of underground utility within the right-of-way, making an initial pavement cut of 15 square feet or more, removing more than 2 panels of CC sidewalk and associated curb and gutter, or attaching to any bridge structure.

Some examples of Class C work include “potholing” to locate existing utilities, constructing a main line or any open cut road crossing. All utilities are required to obtain a Utility Right-of-Way Permit for this type of work no matter what the standing is of the utility.

Other than on County road projects, the maximum length of time allowed for a Class C permit is 9 months.

Fees are charged for Class C work. See Schedule A for fee structure and amounts.

2-6.5 Class D Work

Class D work includes removing, replacing, or relocating any utility poles as well as installing new utility poles where none exist. The timeframe for a permit for Class D work is six months from date of permit activation. Unless otherwise approved by the Engineer, the number of poles included in a permit is not restricted, however, all poles must be within an area not to exceed 1 mile in diameter.

In the event of a pole relocation, replacement, or removal, all utilities using the original pole shall transfer to the new pole within a six-month time frame. The pole owner shall remain responsible for the coordination of transference and removal of abandoned pole(s) within a six-month time frame.

If the abandoned poles are not removed within 6 months, the permit will need to be renewed and a non-UGS fee will be charged unless otherwise agreed by the Engineer.

2-7 County Project Coordination

Utilities shall work with the Engineer to provide as much lead time as possible in their needs for extending facilities and to accommodate the County’s needs for upgrading the County’s road system and maintenance programs. The commitment on the part of the County is to provide timely information concerning the County’s construction and maintenance programs. The expectation is that the utility will provide whatever protection, relocation or extension of their plant, at a time, which will permit the County to complete its work on schedule without delay resulting from the utility.

For County capital improvements on the road system or other work with the right-of-way including the County’s storm and sanitary sewer projects, utilities are required to furnish specific information concerning their utility plan at the initial design stage. They are also required to review the County’s design documents and comment on their impact on utility facilities. Utilities shall coordinate the County’s road, storm, and sanitary improvements within their own short- and long-range development plans.

Utilities are expected to attend every County preconstruction conference and project construction meetings where their facilities may be affected as notified by the Engineer. The utilities shall coordinate the relocation of their facilities with the County's construction contractor, so as not to impede the progress of the County's construction program. The Utility shall provide supervision of the construction activities associated with the relocation or adjustment of their facilities.

2-8 Utility in Good Standing

2-8.1 Concept

In order to facilitate the installation of utilities within road right-of-way and in order to assure that the County's program for capital improvements, operation, and maintenance are enhanced, the County has created the concept of the "Utility in Good Standing" (UGS). The intent is to provide a streamlined permitting process by issuing a UGS certification, which will certify that the utility is complying with all provisions in this document. This certification will allow a UGS utility to work in the right-of-way without a Utility Right-of-Way Permit for all Class B work.

The UGS utility will inspect its own work and will certify that this work is done in accordance with this document. This will allow simple verification by the County's inspection team. The streamlined process will apply to utility-initiated projects.

2-8.2 Certification

2-8.2.1 Approval

Only franchise holders are eligible to apply for UGS certification. Thereafter, all utilities that have less than three written notification of non-compliance of the provisions in this document during the preceding 12 months, upon written request to the Engineer, will be eligible to receive a certificate for a Utility in Good Standing if approved by the Engineer. After an evaluation of the utility's performance in complying with County policies and requirements, the Engineer will issue a UGS certificate that will remain in effect for the length of the franchise or until revoked.

Once the UGS certificate is issued, the utility will be expected to notify the Engineer before Class B work in the right-of-way is commenced, ensure work is in conformance with County requirements and certify work completion at the end of each project by submitting a standard certification statement to the Engineer. Records of the actions by the utilities providing timely relocation and extension, and work that conforms to the standards in this document will be kept by the Engineer and will be used as a basis for establishing or continuing UGS status.

2-8.2.2 Revocation

A UGS utility may have its UGS certification revoked at any time for noncompliance with County requirements. Emphasis shall be placed on those situations that create health, safety, or roadway stability hazards and adverse impacts to the timely coordination and response to County road projects.

If determined by the Engineer, the UGS certification may be revoked after three written notifications of noncompliance with this document within a 12-month period. The revocation will remain in effect until such time as the requirements shown in Subsection 2-8.2.1 above are met, at which time the utility may reapply to the Engineer to reissue the UGS certification.

Noncompliance with the UGS certification provisions can include, but is not limited to the following. Failure to:

1. Comply with the provisions of the franchise agreement.
2. Comply with this document.
3. Comply with the latest edition of the MUTCD.
4. Comply with Washington State Labor and Industry rules.
5. Comply with the provisions and conditions on an approved Utility Right-of-Way Permit.

6. Actively communicate and coordinate with County road construction projects, County sanitary sewer, and County stormwater projects, including attending any required design, pre-construction, or project construction meetings.
7. Actively communicate and coordinate with other utilities on utility-initiated projects as well as County-initiated projects.
8. Respond to reasonable requests for relocation information when requested by the County.
9. Relocate utility facilities, in a timely manner, consistent with all governmental and regulatory codes, approved construction schedules, and associated standards and specifications.
10. Construct utility facilities with an approved deviation when compliance with County standards cannot be achieved.
11. Obtain a Utility Right-of-Way Permit, as required, before working in the right-of-way.
12. Notify the Engineer before starting work.
13. Have construction plans on site when work is occurring.
14. Provide supervision of the work.
15. Notify the appropriate fire department of a road closure.
16. Complete all work within approved working days from the start of work.
17. Permanently repair a pavement patch within 30 working days after placing temporary patching.
18. Restore the roadway and pavement in accordance with approved provisions and conditions.
19. Maintain or leave the project site in a manner that is safe and protected.
20. Not cut pavement that is less than 5 years old unless approved by the Engineer.
21. Maintain temporary pavement restorations.
22. Remove abandoned above ground facilities in the required time frames.
23. Pay Utility Right-of-Way Permit fees in a timely manner.
24. Restore in a timely manner survey monumentation after removal or destruction.
25. Maintain survey control provided by the County on County projects.
26. Comply with Pierce County NPDES stormwater permit.
27. Comply with PCC 11.05 for stormwater discharges.

Failure to consistently notify the Engineer of canceled or completed work in a timely manner may also be considered an issue of non-compliance.

Permit work that is provided in a non-compliant manner may be assessed the non-UGS permit fee.

2-8.2.3 Compliance Monitoring

The County Engineer shall keep and review records of performance for each utility in order to monitor compliance to the Pierce County Code and the provisions contained in this document. These records shall be kept and reviewed by the Engineer to determine and certify eligibility to receive a designation of “Utility in Good Standing.”

The purpose of compliance monitoring is to identify undesirable or substandard performance by any utility and to provide corrective measures and standards and generally will be administered in an orderly and progressive manner as follows:

1. Verbal counseling of any failure to perform (oral warning).
2. Written notification of failure to perform (written warning).
3. Written notification of non-compliance of provisions (instance of noncompliance).

4. Revocation of “Utility in Good Standing” certification (written revocation).
5. Written notification of failure to comply with the franchise agreement provisions (legal action pending).

Actions by the Engineer as a result of compliance monitoring may be imposed at any level taking into consideration the utility’s tenure, prior performance levels, volume of work conducted, and the severity of the noncompliance, and undesirable or substandard performance by the utility. No action beyond verbal counseling of any failure to perform (oral warning) shall be administered without the approval of the County Engineer. Any written notice prepared by the Engineer will state the following:

1. The cause for the action being taken.
2. The reasons and/or facts supporting the cause.
3. The level of action to be imposed.
4. The effective date of the action to be imposed.
5. The corrective measure to be taken by the utility.
6. The time limits for appeal of the action.

Each utility may appeal the actions of the Engineer by filing a written notice of appeal to the Office of the County Engineer Division, at the address listed on the Information Sheet, within five (5) working days of the utility having been notified of the Engineer’s action. The written notice of appeal by the utility shall contain a statement of the following:

1. The actions or alleged actions from which the appeal is taken.
2. The grounds for appeal.
3. The relief requested.

The Engineer will respond to the utility within five (5) working days of receiving the written notice of appeal.

2-9 Fees

Fees are charged for each Utility Right-of-Way Permit and franchise. Utilities in good standing (see previous section) are required to obtain permits only for Class C and D work. All other utilities are required to obtain a permit for Class B, C or D work. Any utility performing work as a result of a County construction or maintenance project shall be exempt from any applicable permit fee on County construction or maintenance projects. The Utility in Good Standing shall be exempt from required reimbursement for regular and overtime hours of inspection on County construction or maintenance projects.

Other than on County construction or maintenance projects, the County reserves the right to require reimbursement from utilities for regular and overtime hours of inspection time spent on utility work.

See Schedule A for the fee structure and amounts.

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Chapter 3

PERMITTING PROCESS

3-1 Franchise Procedures

A franchise is required for utilities to operate in Pierce County and in the state of Washington. An area wide, nonexclusive franchise may be granted in Pierce County as an ordinance by the Pierce County Council. To begin the application process to be considered for the issuance of a franchise, contact the Department (see the Information Sheet in the front of this manual for the address and telephone numbers and Appendix B for the form).

A processing fee is charged to the applicant for a franchise. Specifics of the franchise process are shown in PCC Chapter 12.32.

3-2 Utility Right-of-Way Permit Procedures

3-2.1 General

Utility Right-of-Way Permits are issued only to the holder of a franchise. This ensures that the utility owner is responsible for work performed under its franchise. It is the permittee's responsibility to know the provisions of the permit and communicate the provisions to the individuals performing the work. The franchise and permit procedures, including inspection and project completion, are presented in Figure 1 on the following page. Utility Right-of-Way Permits are processed by the Department (see the Information Sheet for the address and telephone numbers).

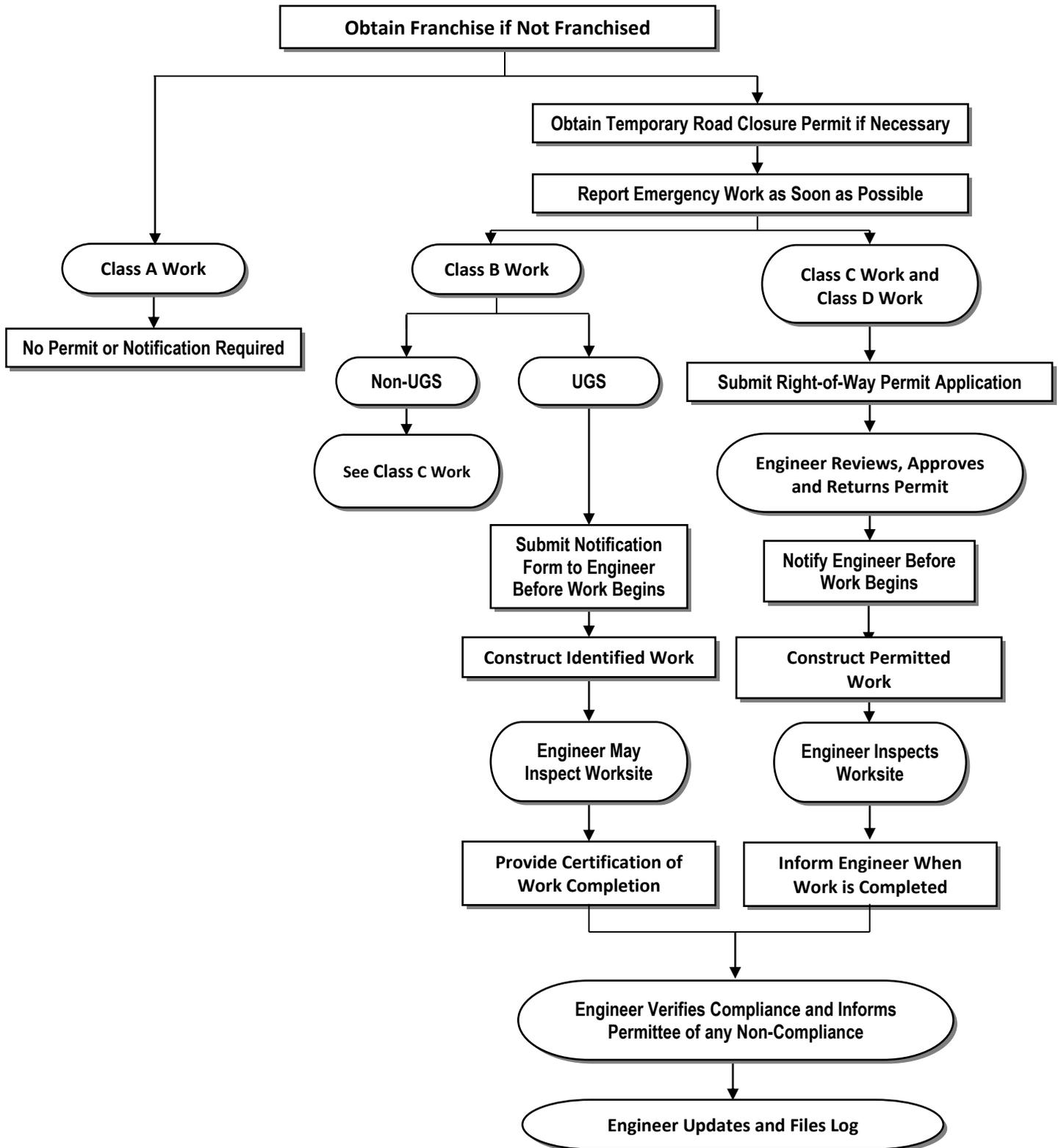
A Utility Right-of-Way Permit shall be required for work in County rights-of-way by all utility facilities except for those installed under Class A work or for those installed under Class B work by a Utility in Good Standing. No facility shall be used for other than the purpose stated in the permit or supporting franchise unless written approval is granted by the County Engineer.

Utility Right-of-Way Permits are not issued for utility work on private roads. Therefore, if public road conversion is anticipated, it is the responsibility of the utility to ensure that the utility is properly located and installed to meet County road design standards for both the utility and its placement in a roadway. Granting of a franchise or permit does not imply and shall not be construed to mean that the County is responsible for the design, construction, or operation of the utility or for public safety during its installation, operation, and maintenance.

All permit applications shall be submitted in a standard format as prescribed by the Engineer to the address noted on the Information Sheet. A copy of the permit form is in Appendix B. A fee is charged for this permit (see Schedule A) which is payable to the Department in accordance with administrative procedures developed by the Department. Specific requirements of this permit are described below. If a road closure is required to perform the work, a Permit for Temporary Road Closure must be obtained (see Section 2-3).

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UTILITY RIGHT-OF-WAY PERMIT PROCESS FLOW CHART



3-2.2 Standard Procedures

Non-UGS utilities are required to obtain a Utility Right-of-Way Permit for all Class B, C, and D franchised utility work within County rights-of-way, including any work necessitated by a County road project. If the scope of a Class A project changes to Class B during construction, a non-UGS utility must pay the fee to obtain a permit before proceeding with construction. If the scope of a Class B project changes to Class C during construction, a non-UGS utility must pay the additional fee before proceeding with construction.

UGS utilities are required to obtain Utility Right-of-Way Permits for all Class C and D work with the following exception. If a UGS utility notifies the Engineer of a Class B project, and the scope of a Class B project changes to Class C during construction, a UGS utility would not have to obtain a permit. In this case, the utility must immediately notify the Engineer and, in turn, will be billed the appropriate fee for the change in the scope of work. If the scope of a Class A project changes to Class B during construction, a UGS utility must notify the Engineer by the following business day.

For work requiring a Utility Right-of-Way Permit, three copies of plans or drawings must be attached to the right-of-way permit application. Information to be provided on or attached to the Utility Right-of-Way Permit includes:

1. All specific information requested on the permit application form.
2. General description of the facilities to be installed as to size, type, nature, and extent of installation and location.
3. Estimated working days necessary to complete proposed work.
4. A utility plan showing:
 - a. Size and type of utility
 - b. Location/alignment of proposed utility
 - c. County rights-of-way (must be located by the utility)
 - d. Relationship to planned road revisions if available
 - e. Roadway width
 - f. Proposed side services
5. A typical cross section showing:
 - a. Permittee's proposed utility
 - b. Permittee's existing utility
 - c. Pavement width
 - d. Shoulder width
 - e. Ditch dimensions
6. Traffic control plans.
7. Fee payment.

The Engineer will review the utility's plans with respect to location, the manner in which the utility facility is to be installed, and the measures to be taken to preserve safe and free flow of traffic, the structural integrity of the roadway, the ease of future road maintenance, and the appearance of the roadway. The Engineer may apply additional conditions to the permit to ensure the aforementioned measures are taken. In applying the conditions, the Engineer may take into account a utility's past history in complying with the policies and provisions of this document. Trenched construction involving pavement cutting and restoration, a history of failures to restore the trench with permanent surfacing as required, or a history of permanent patch failures within one year of installation may be cause for requiring trenchless construction.

The Engineer will also check the plans to see that they are consistent with the applicant's County franchise, proposed County construction plans, County road standards, and this document. The Engineer may require that the applicant make changes to the plans or supply additional information before issuing the Utility Right-of-Way Permit.

No work may commence prior to permit approval by the Engineer. Although it is the Department's goal to process most permit applications within 24 hours after their submittal to assure adequate permit processing time, utilities are encouraged to submit Utility Right-of-Way Permit applications at least one week before the proposed work is scheduled to start.

The permittee is required to activate the Utility Right-of-Way Permit by notifying the Engineer at the Utility Permit Inspection Office no later than 8:30 a.m. on the first business day before any utility work begins, at the address and/or telephone numbers noted on the information sheet. Notification to activate a permit may be made by telephone, mail, email or fax, identifying the activation date and the permit number. The Permit Activity Form shown in Appendix B may be used for activating permits. A copy of the permit and approved plan shall be available at the work site at all times.

The utility shall keep the Engineer informed about the progress of the work and any major work items. If a Utility Right-of-Way Permit project involves any trenching, the permittee shall notify the Engineer when the trench will be open so that the Engineer can observe the utility installation.

As soon as the permittee has completed the utility work, the permittee shall notify the Engineer, who will inspect the work location. The right-of-way restoration shall conform to County standards, Department policies and applicable state and federal laws, or the work will be rejected.

3-2.3 Emergency Procedures

Occasionally, emergency work occurs when there is a sudden, unplanned interruption in service, and it is necessary to immediately restore service to ensure the health, welfare, or safety of the public. Examples are a sudden discovery that a utility line is leaking or an important communication line has failed. In these cases, the utility can work in the right-of-way without first obtaining a Utility Right-of-Way Permit.

For all emergency Class B, C and D work, upon learning of an emergency, the utility shall notify the Engineer, by telephone, fax, or email, as soon as practical. After business hours, emergency work can be called in to the after-hours number for the Pierce County Answering Service (see Information Sheet), if conditions warrant, with a request to be contacted by the "Supervisor on call." The utility shall coordinate work activities and restoration with the Engineer.

The utility shall confine its operations as much as possible to the non-traveled portion of the right-of-way and shall exercise caution to protect the traveling public during such repairs. All provisions of Section 2-3 must be complied with while performing emergency work.

Upon completion of the utility work, the permittee shall notify the Engineer, who will inspect the work location. The right-of-way restoration shall conform to County standards, Department policies and applicable state and federal laws, or the work will be rejected.

A permit is required for all emergency Class B, C, and D work. However, it is not necessary to obtain a permit prior to starting the work. Notification via email, phone, or fax is required as soon as feasible. No permit fee is required for emergency work completed within one week of the incident.

3-2.4 Utility in Good Standing Procedures

Under the conditions outlined in Section 2-8, a Utility in Good Standing (UGS) certification may be granted by the Engineer. This is a certification that will allow a utility to work within County right-of-way without obtaining a Utility Right-of-Way Permit for Class B work. All of the policies in Chapter 2 shall apply to the UGS right-of-way work.

Notification by a UGS to the Engineer for Class B work is required no later than 3:00 p.m. on the first business day before the UGS begins work, and may be made by mail, email or fax, identifying the activation date and the requested information on the “Notification/Certification Form” (see Appendix B). A UGS must provide plans for the Class B work upon request from the Engineer.

The Engineer will occasionally observe Class B work sites during project construction and will notify the utility of any non-compliance with County standards. The utility shall notify the Engineer as soon as the work has been completed and shall certify that the work meets or exceeds County requirements. The certification can be completed by mail or fax using the “Notification/Certification Form” (see Appendix B). The Engineer will verify that the work complies with County standards and will update the file log. If the work does not comply, the utility shall bring the work into compliance as soon as practical. Any noncompliance will be noted in the Engineer’s log.

3-2.5 Inspection After Hours

A utility may request inspections outside of normal Department working hours through special permission from the Engineer. The utility must agree in advance to reimburse the County for labor and expenses necessary to accommodate the request. All requests for working outside of normal Department working hours must be submitted in writing to the Engineer at least one week before the anticipated start of work. The After Hours Memorandum Agreement (see Appendix B) will then be prepared by the Engineer and forwarded to the requesting utility for execution.

Chapter 4

COORDINATION AND PLANNING

4-1 Planning Documents

Listed below are several County documents available to assist utilities with coordination and planning of their facilities with roadway projects. Utilities should make use of these documents to take actions that will reduce or eliminate the need to cut new pavement during future utility projects.

The County maintains a *Capital Facilities Plan* (CFP) which incorporates projects from many types of County projects including park, sewer and stormwater. Questions concerning this document may be directed to the Department of Planning and Land Services (see Information Sheet). Questions concerning specific sewer or stormwater projects may be directed to the Department's Sewer or Surface Water Management Divisions, respectively (see Information Sheet).

In addition, Public Works and Utilities maintain the following documents:

1. Six-Year Transportation Improvement Program (TIP)
2. Six-Year Surface Water Management Capital Facilities Plan (CFP)
3. Six-Year Sewer Utility Capital Facilities Plan (CFP)
4. Six-Year Sewer Utility Sewer Improvement Program (SIP)
5. Transportation Element of the Pierce County Comprehensive Plan
6. Annual Resurfacing and Bituminous Surface Treatment (BST) Program

Copies of these documents can be found on Public Works website at:

www.co.pierce.wa.us/index.aspx?NID=119

4-2 County Projects

4-2.1 General

Utilities are encouraged to maintain communication with the County Engineer or Project Designee and with other utilities throughout development of a County project. The Department will make available plans and details as they are needed by the utility for its plans throughout the development phases of the County project.

In addition to the Six-Year Program, the Annual Program, and the Project Status Reports, for most County-initiated projects, the Department will submit information to the affected utilities as noted in the utility coordination schedule (Table 2). The Department maintains a master list of franchised utility companies operating in Pierce County with a single contact name for each utility. It is the utility company's responsibility to keep the contact name and associated information current. This list is used to send notifications of the County projects to the utilities. For questions on current County project design and construction, contact the Applicable Section (see Information Sheet). For questions or information relative to County right-of-way issues, contact the Department's Survey group (see Information Sheet).

4-2.2 Notifications

4-2.2.1 Six-Year Program/Annual Program

Notifications occur each year after the County Council adoption of the County's CFP, SIP, and TIP Six-Year Programs. The Department will annually notify all franchised utility companies of the availability of lists of County projects contemplated for the ensuing six-year period. A copy of the Six-Year Programs will be provided to a franchised utility company upon request. The later a project on a list is scheduled, the more tentative is the scheduling. Therefore, the schedules for later projects should be used by the utility for preliminary budgeting and scheduling purposes only. The County's *Annual Program* is included in the Six-Year Program.

Projects included in this program are funded and have a more certain schedule than projects scheduled for later years on the six-year programs. Notifications to the utility companies will be provided annually with periodic updates as needed.

4-2.2.2 Project Status Reports

Project status for projects in design and construction can be found on the Public Works' website at: <http://www.co.pierce.wa.us/crp>.

4-2.2.3 Preliminary Engineering

The preliminary engineering phase notification letters are sent to applicable utilities notifying them of the proposed scope of work for a specific project. The utilities shall respond with "as-built" information of the affected facilities, field locates if requested and any comments in a timely manner as requested by the Department and shall use the proposed scope of work for budgeting and scheduling purposes. Utilities will be notified of, and are expected to attend, regular meetings with the project team.

When requested, the utility will provide a definitive statement about the origin of all products to be permanently incorporated into the project covered under the Buy America requirements.

Utility notification letters are sent to all known utilities located in, or adjacent to, the right-of-way where the project will occur. Two copies of the preliminary plans are enclosed with the notification letters. The utilities are required to accurately mark the location and depth of their facilities on the plans, and submit this information to the Department in a timely manner as requested by the Department. The utilities, at this time, have the opportunity to propose design features and provide preliminary information that will assist in future installations or utility connections.

Note: For Department bridge replacement, repair, rehabilitation, etc., the utility company must propose interim utility relocation, utility reinforcement, utility protection, etc., during construction. The utility shall provide adequate information to include the proposed utility work into the Department's environmental permitting process. Preliminary development of any Utility/Department agreement(s) needs to begin.

A timely response by a utility will demonstrate to the County that the utility is actively coordinating with Department projects. Based on the information submitted to the County by the utilities, the County will make every effort to design around, or accommodate, the utilities' existing, or proposed future, facilities. All information for existing facilities needs to be accurate and verified. A utility coordination meeting may be scheduled depending upon the size and complexity of the project.

4-2.2.4 Final Engineering

Continued involvement occurs during the final engineering phase, through quarterly meetings and other efforts. The updated construction plans will be submitted through notification letters and transmitted to the utilities. The utility must review and finalize their plans and coordinate any relocation, temporary relocation, and/or new utility work as necessary with the Department. Redesign work needed at later stages of final engineering, due to inaccurate information provided by the utility, shall be at the utility company's expense.

The utility should review the plans and letter of understanding and make any final comments. The utility shall sign the letter of concurrence noting any comments and return the letter to the Department within the time specified. After utility relocation plans are signed, Pierce County will provide determination if a utility relocation time and length of window will be identified.

The utility must proceed to obtain any necessary permits that were not obtained through the Department's environmental permitting process. Relocation within project limits is covered under SEPA process.

Table 2 Utility Coordination Schedule		
Description	Type	Utility Responsibility
Six-Year Programs (including Annual Programs)	Preliminary Project Funding	Prepare preliminary budgets and schedules.
Project Status Reports	Project Status	Review report and coordinate with County projects.
Preliminary Engineering	Project Scope Preliminary Plans	Review proposed scope. Return “as-builts” and comments. Field locate and confirm horizontal alignment and depth of underground utilities. Propose design features and schedule work. Attend utility coordination meeting and team quarterly meeting as applicable.
Final Engineering	Tentative Final Construction Plans	Review plans and specifications. Notify Department if there are any comments. Budget and schedule project. Review, verify relocation work and submit plans for permits. Verify commitments, sign concurrence, and return letter to the County.
Advertisement	Approved Construction Plans and Applicable Specifications	Utility receives approved project plans and specifications.
Pre-construction Meeting	Pre-construction Meeting Notice	Bring appropriate plans, schedules and right-of-way permit. Coordinate with project engineers, contractors and other utilities.
Project Construction Meeting	Contractor Notification	Attend on-site weekly project weekly coordination meetings as necessary to ensure proper coordination with the contractor for any utility work.

4-2.2.5 Advertisement

The County will send approved plans and specifications at project advertisement to each affected utility.

4-2.2.6 Pre-Construction Meeting

The utility will be notified of, and is expected to attend, the pre-construction meeting. Utilities are required to bring appropriate plans, a schedule for their relocation work and the Class “C” Utility Right-of-Way Permit to the pre-construction meeting. The pre-construction meeting provides an opportunity for the utilities to coordinate and schedule their involvement with the Department and contractors. Utilities which choose to begin relocation of their facilities prior to the pre-construction meeting shall coordinate with the Department through the normal right-of-way permit application process. Attendance at this meeting is required unless waived by the County Engineer and will demonstrate to the Department that the utility is actively coordinating with County projects. Continued coordination throughout the construction phase of the project is required. Failure to comply with the requirements of this paragraph may be cause for immediate revocation of “Utility in Good Standing” status.

4-2.2.7 Construction Meetings

When the utilities are to be worked on during the Contractor's scheduled work, construction meetings are held to facilitate the coordination of the work. Proper coordination of activities will assist to minimize cost to the general public and allow for the Contractor and the utility companies to perform their work in an efficient manner.

The Contractor should provide the utility companies with a two-week written notice of the initial construction meeting. Following the initial meeting, subsequent coordination meetings will be arranged by telephone, fax, or email.

When a utility window is included in a project contract, the Engineer shall provide written notification to the utility companies of the proposed start date of the utility window. During the utility window, the utility companies shall provide a weekly status of their utility work and their anticipated completion date to both the Contractor and the County. It shall be the Contractor's responsibility to coordinate construction activities with affected utilities.

4.2.2.8 Survey Control

On County projects, the following survey reference information will be provided by the County at the following locations one time only:

- Centerline staking at 50-foot intervals.
- A horizontal offset (a distance depending upon the existing conditions) from centerline at 50 ft intervals. Provide vertical control reference (i.e., XX.XX ft to subgrade) at the horizontal offset.
- Stationing at 50-foot intervals for the horizontal limits of the right-of-way.
- Catch basin stationing.
- Vertical cuts to the flow line at the catch basins.
- Station and offset to signal pole locations.
- Electrical cabinet location.
- Station and offset to luminaire locations.
- Other information at intersections as deemed appropriate by the County.

The Utility shall be responsible to preserve and if necessary reinstall the survey reference information.

4-2.3 Electronic Plans

Electronic copies of the County's preliminary plans will be provided to the utilities upon request. The utility is required to sign the "Transfer of Electronic Plans to Utility Companies" agreement.

4-3 Utility Projects

Utilities shall, within the limits of standard business practice, make available appropriate short- and long-range development plans to the County. The County is an active member of the Utility Coordination Council and will assist in the coordination process as necessary. Utilities should provide for any planned expansion of their facilities within County rights-of-way when installing a new or adjusting an existing facility. Examples of this include providing additional empty conduit to trenches and increasing pipe sizes. This will help minimize the amount of future road cutting.

It is the responsibility of the utilities as practical, prior to construction, to notify all other public and private utility entities using the same right-of-way as the applicant's proposed construction. The utilities shall coordinate their activities to minimize work within County rights-of-way. For instance, utilities should make every effort to install their facilities in the same trench at the same time at road crossings. Utilities shall also coordinate with County projects to minimize cutting of newly surfaced roads.

4-4 Pierce Transit Project Coordination

In order to maintain public transit route time schedules, utilities shall maintain communications with Pierce Transit during project planning and construction.

4-5 Private Development Work

Utility work on private roads, and utility service to private developments, should be coordinated through Pierce County Planning and Land Services (see Information Sheet). Utility installation in private roads should conform whenever possible to the standards outlined in this document. Any private development utility work within the County rights-of-way shall require a Class “C” Utility Permit.

4-6 Right-of-Way Vacation

Occasionally, Pierce County vacates right-of-way that contains utility franchises. These actions are taken in accordance with RCW 36.87.140 (see Appendix E) by the Pierce County Council. To be placed on the notification list for public hearings with respect to right-of-way vacations, contact the Clerk of the County Council (see Information Sheet).

4-7 Private Property Adjacent to County Right-of-Way

It is the responsibility of the utilities, when practical, prior to any utility work, to notify all adjacent property owners of impending work.

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UNDERGROUND UTILITY PROVISIONS

5-1 Location and Alignment

5-1.1 General

The general location and alignment of new utility installations shall meet, as close as is practical, the policies as established in this document. Specific placement of new utilities will depend on locations of existing utilities, right-of-way limitations, and existing topographic conditions.

Additionally, the utility company will comply with all applicable federal, state and local codes, rules and regulations, including Buy America provisions where applicable.

5-1.2 Road Crossings

For all utility road crossings, the angle of the crossing should be as near a right angle to the road centerline as practicable. Crossings should avoid deep cuts, footings of bridges, retaining walls, wet or rocky terrain, or locations where highway drainage would be affected.

5-1.3 Longitudinal Installations

Longitudinal installations shall run parallel with the centerline of the roadway. Utilities should lie as near as practicable to the roadway right-of-way line. Utilities may be located in the shoulder if no portion of the trench is closer than one foot from the edge of the traveled way.

In general, utilities should not be installed within the roadside ditch. The preferred location is within the shoulder or outside the ditch line. For roadway sections with sidewalks or paved walkways (paths), utilities should be placed back of the facility and as close to the right-of-way line as possible. In areas where the right-of-way line is variable, variation in the distance from the right-of-way line may be allowed as necessary to maintain a reasonably uniform alignment.

5-1.4 Culverts

Utility lines or pipes that cross a culvert shall be separated from the culvert by at least 6 inches; however, the minimum depth of cover must still be maintained. Utilities are not permitted over existing culverts or storm sewers where 36 inches of cover cannot be provided. Utilities are not permitted to deviate from a straight line alignment to go around a culvert horizontally.

5-1.5 Separation

Utilities requiring horizontal and/or vertical separation from one another (i.e., potable water and sanitary sewer) shall be separated in accordance with the appropriate industry standards and specifications. To ensure adequate space for future utility installations, all cables of each utility shall be bunched.

5-1.6 Abandoned Utility

Unless otherwise approved by the Engineer, an existing underground utility or associated appurtenances no longer being used to provide service shall be removed from the right-of-way.

If a replaced or abandoned utility or appurtenances are being requested to remain in place in the existing right-of-way, discussions will be held with the Engineer as to how to preserve the right-of-way for future use.

If abandoned utilities are allowed to remain in the right-of-way, an executed agreement between the Utility and the County will be developed based upon the discussions. The agreement shall include, but will not necessarily be limited to, the following:

- The Utility Company shall remain the owner of the abandoned utility and appurtenances.

- The Utility Company shall be required to retain the responsibility for the removal, any mitigation as a result of the removal, and ultimate disposal of the abandoned utility facilities and appurtenances should they be in conflict with future construction activities within the County right-of-way.
- The Utility Company shall provide an “As-Built” survey of the abandoned utility and appurtenances within 90 days of the date of the work completion.

5-2 Cover

5-2.1 General

The top of an underground utility shall not be less than 36 inches below the surface point of the installation within the road right-of-way. If construction in the ditch is allowed by the Engineer, the cover shall not be less than 42 inches below ditch bottom. The Engineer may permit a lesser cover where the utility is installed in solid rock, or when the utility is crossing a ditch where it is not practical to maintain the 36-inch depth (see Subsections 5-3.2 and 5-4.4).

The County shall not be responsible, financial or otherwise, for damages to any utility that is located in the right-of-way with cover less than required by Section 5-2 of this manual.

5-2.2 Dangerous Materials

Cover for utilities transmitting materials which are flammable, corrosive, expansive, energized, or unstable, shall be in accordance with appropriate industry standards and specifications, or 36 inches, whichever is greater.

5-3 Encasement

5-3.1 General

Casings shall be required for roadway crossings where casing is required by appropriate industry code or where local features, embankment materials, construction methods, or other conditions indicate any possible damage to the protective coating of the carrier line during installation.

5-3.2 Conditions Requiring Casings

Casings may be required by the Engineer for the following conditions:

1. As an expediency in the insertion, removal, replacement, or maintenance of a carrier line crossing, or other locations where it is necessary to avoid open trench construction.
2. As protection for carrier lines from external loads or shock either during or after construction of a road.
3. As a means of conveying leaking fluids or gases away from the area directly beneath the traveled way to a point of venting or drainage.
4. As deemed appropriate by the Engineer in exceptional cases for public convenience and safety.
5. When 42 inches of cover cannot be maintained from the bottom of a ditch or other facility when crossing by the utility.
6. When new installations, repairs, or upgrades, are made to underground facilities beneath an existing railroad crossing.

5-3.3 Location

See Section 5-6.4.

5-3.4 Structural Requirements

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 drainage facilities.

5-3.5 Material Composition

Casings shall be composed of materials of sufficient durability to withstand any conditions to which they may normally be exposed including allowances for corrosion.

5-4 Uncased Carriers

5-4.1 General

The carrier pipe shall conform to the material and design requirements of the appropriate utility industry and governmental codes and specifications.

5-4.2 Pipe Thickness

Schedule 40 or thicker wall pipe is required on all roadway and driveway crossings.

5-4.3 Loading

The carrier pipe shall be designed to support the load of the road, plus superimposed loads thereon, when the pipe is operated under all ranges of pressure from maximum internal to zero pressure.

5-4.4 Protection

Suitable bridging, concrete slabs, or other appropriate measures as approved by the Engineer shall be used to protect existing carriers which, by reason of shallow bury or location makes them vulnerable to damage from road construction or maintenance operations. Existing carriers may remain in place without further protective measures, if they are of adequate depth and do not conflict with the road construction or maintenance, provided they are structurally sound and operationally safe.

5-5 Appurtenances

5-5.1 Location

5-5.1.1 Below-Ground

Except for vents, utility poles, and fire hydrants, all below-ground appurtenances shall be placed below or even with adjacent grade and comply with Pierce County Standard Drawings. When specifically designed to be accessed at grade, vaults may be placed even with adjacent grade. All other utility vaults must have at least 36 inches of cover, except if their width is greater than 84 inches and/or their length is greater than 144 inches, in which case the cover must be at least 48 inches. Manholes, vaults and other below-ground appurtenances should be designed and located in a manner that will cause the least interference to motorists, pedestrians, other utilities and future road expansion. No portion of an underground utility vault shall be placed closer than 24 inches from any traveled way.

5-5.1.2 Above-Ground

Unless otherwise approved by the Engineer, all above-ground appurtenances which may constitute a roadside obstacle for traffic using the road shall be located as close as practical to the right-of-way line. If an appurtenance adjacent to the right-of-way line constitutes an unacceptable roadside obstacle or site distance problem, the appurtenance must be relocated to another place within or off the right-of-way.

5-5.2 Vents

Vents shall be required for casings and tunnels enclosing carriers of fuel where required by industry 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, they should stand by a fence or on the right-of-way line.

5-5.3 Drains

Drains shall be required for casings and tunnels enclosing carriers of liquefied or heavy gas. Drains for carriers of hazardous materials shall be directed to natural or artificial holding areas that will decrease the potential for surface or groundwater contamination. The drain outfall shall not be used as a wasteway for routine purging of the carrier.

5-5.4 Markers

For all installations of fiber optic communication cables, a buried marker tape identifying the nature of the installation shall be included and placed 18 inches below the finished ground surface. For all nonmetallic underground utility installations, a metal locating wire shall be required and shall be placed at the same depth as the utility.

5-6 Installation

5-6.1 General

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. Methods of installation include trenching, boring, pushing, hole-hogging, pulling and plowing.

5-6.2 One Call System

All utilities are required to call the Washington State One Call System at 811 or callbeforeyoudig.org at least two business days before performing any sub-surface work in accordance with RCW Chapter 19.122 (see table in Section 1-4).

5-6.3 Trenched Construction and Backfill

5-6.3.1 General

For any trenched construction involving pavement cutting and restoration, refer to the Utility Patch Details in Appendix C. Cutting pavement during the period of 5 years following the construction or resurfacing of the pavement will be at the discretion of the County Engineer.

5-6.3.2 Pavement Cutting

1. Where pavement must be removed, it shall be cut in vertical, continuous straight lines, using appropriate machinery. All permanent final patches shall be rectangular or circular in shape.
2. The minimum width of the pavement cutback shall be that of the widest portion of the trench plus an additional foot on each side of the trench.
3. During backfill and compaction, the utility shall cut the pavement back to meet the width of the sloughing.
4. Wherever there is an existing patch or crack in close proximity to the new cut, the Engineer may require the utility to also remove the existing patch or crack and any intervening pavement.
5. For longitudinal cuts see Subsection 5-6.3.9(7).

5-6.3.3 Trench Excavation

1. Where soil and depth conditions permit, trenches shall be cut with vertical faces and as narrow as practical. Shoring shall comply with applicable industry safety codes.
2. The pipe bedding shall be a uniformly dense unyielding base for the utility to be placed. Unstable soils and rock ledges shall be removed and replaced with suitable material.

5-6.3.4 Trench Restoration

1. The pipe bedding shall be granular material, meeting the specifications shown on the Utility Patch detail in Appendix C and approved by the Engineer, free of lumps, clods, stones, and frozen material. The bedding shall be adequate to support the conduit and trench. Pipe bedding shall be compacted to 95 percent maximum density as determined by the American Association of State Highway and Transportation Officials (AASHTO) Method T-99.
2. The material shall be free of deleterious material and the material shall be non-plastic.
 - a. Deleterious material includes wood, organic waste, coal, charcoal, and any other extraneous or objectionable material.
 - b. The material shall be considered non-plastic if the percent by weight passing the U.S. No. 200 sieve does not exceed 15 percent, or if the soil fraction passing the U.S. No. 40 sieve cannot be rolled, at any moisture content, into a thread as prescribed in Section 4 of AASHTO Test Method T 90.
3. For trenches within the existing/proposed roadway, the trench backfill shall be a 4-inch minus imported or native gravel base meeting or exceeding the specifications shown on the Utility Patch detail in Appendix C compacted to 95 percent maximum density. Controlled Density Fill is an acceptable backfill alternate as approved or required by the Engineer.
4. Compaction by saturation, jetting or ponding is not permitted. The moisture content shall not vary more than 3 percent above or below optimum.
5. The pipe or carrier shall be installed and the trench backfilled in a manner assuring no deformation of the pipe and to maintain the structural integrity of the roadway.
6. Utility installation requirements not noted in this manual shall meet the applicable WSDOT standard specification.
7. For trenches on roads required to be opened to traffic prior to final trench restoration, bridging by appropriate material may be required.

5-6.3.5 Shallow Trench Zone Restoration (trench depth less than eight feet)

1. Water settling and jetting are not acceptable. Mechanical methods shall be utilized for placement and compaction of the trench backfill material within this trench zone.
2. The trench backfill material shall meet the requirements of Subsection 5-6.3.4.
3. The trench backfill material shall be placed in maximum 1-foot lifts and compacted to 95 percent maximum density.
4. The minimum allowable testing frequency in the shallow trench shall be three (3) tests for each 100 linear feet of trench. The three tests should be distributed uniformly over the full extent (depth) of the trench zone unless otherwise approved by the Engineer.

5-6.3.6 Medium Trench Zone Restoration (trench depth greater than 8 feet but less than 16 feet)

1. Mechanical methods shall be utilized for placement and compaction of the trench backfill material within this trench zone. Water settling and jetting are not acceptable unless approved in writing by the Engineer.
2. The material shall meet the requirements of Subsection 5-6.3.4 with the exception that 100 percent of the material shall pass the 6-inch square screen instead of the requirement that 100 percent shall pass the 4-inch square screen.
3. The trench backfill material shall be placed in maximum 2-foot lifts and compacted to 95 percent maximum density.
4. The minimum allowable testing frequency in the medium trench zones shall be one test for each 100 lineal feet.

5-6.3.7 Deep Trench Zone Restoration (trench depth greater than or equal to 16 feet)

1. Mechanical methods shall be utilized for placement and compaction of the trench backfill material within this trench zone. Water settling and jetting are not acceptable unless approved in writing by the Engineer.
2. The material shall meet the requirements of Subsection 5-6.3.4 with the exception that 100 percent of the material shall pass the 6-inch square screen test instead of the requirement that 100 percent shall pass the 4-inch square screen.
3. The trench backfill material shall be placed in maximum 4-foot lifts and compacted to 95 percent maximum density.
4. The minimum allowable testing frequency in the deep trench zones shall be one (1) test for each 100 lineal feet.

5-6.3.8 Alternative Trench Backfill Material

Alternative trench backfill material that does not meet the requirements of Subsection 5-6.3.4 may be accepted conditionally upon the following, which shall be provided at no expense to the County.

1. Prior to utilizing a material that does not meet the specifications previously stated in Subsection 5-6.3.4 above, a soils analysis and report must be provided to the County. At a minimum, the report shall provide the following information:
 - a. Grain size (sieve) analysis including dust ratio and sand equivalency.
 - b. Lab Compaction Characteristics: Determine relationship between water content and dry unit weight (proctor). State optimum moisture content and maximum dry density.
 - c. Recommended placement parameters including maximum thickness of lifts in each zone (not to exceed those specified in Subsection 5-6.3.4 through 5-6.3.7)
 - d. Recommended compaction methods and proposed testing pattern. The compaction testing pattern shall be field reviewed, discussed, and agreed to by the County prior to placement of the trench backfill material. The minimum allowable testing frequency in the medium and deep trench zones shall be one (1) test in each trench depth zone for each 100 lineal feet.
2. The soils analysis and report shall be stamped by an engineer who has an expertise in soil mechanics and who is licensed in the state of Washington.
3. An engineer who has an expertise in soil mechanics and who is licensed in the state of Washington shall monitor the placement and compaction of the material. The engineer shall be on the site each day during backfilling operations to monitor content and to observe the method of compaction to ensure compliance with the soils report and with the conditions of the test pattern.
4. A soil sample and analysis shall be performed on the trench backfill material (native or imported) to be utilized on the project prior to commencing construction and every 500 linear feet of trench backfill material utilized on the project, with a minimum of one (1) test per project.
5. The minimum allowable testing frequency in the shallow trench shall be three (3) tests for each 100 linear feet of trench. The three tests should be distributed uniformly over the full extent (depth) of the trench zone.
6. Trench backfill material below a trench depth of 8 feet shall be compacted to the satisfaction of the engineer in (3) above such that the engineer can certify that the material has been compacted to 95 percent of optimum density.

7. The daily project diary documenting observations and comments regarding compaction, results of the soils analysis and the density tests shall be provided to the County on a daily basis by the engineer described in (3) above. At the completion of the project, a report that summarizes the observations associated with the trench backfill material placement, soils analysis and compaction results shall be submitted to the County. The licensed engineer described in (3) above shall certify and stamp this report with their State of Washington engineering seal. This report must be submitted and approved by the County prior to project acceptance.
8. In the event test results or construction observations verify lack of compliance with the soils report and recommended trench backfill installation methods, the material shall be removed and replaced, or re-compacted to the satisfaction of the engineer.
9. A two-year warranty, from the date of final acceptance of the total project, shall be provided to guarantee the satisfactory road restoration in the case of settlement or pavement distress. The warranty amount shall be a minimum 10 percent of the total construction costs or other amount as determined by the County.

5-6.3.9 Pavement Restoration

1. **General.** When trenching is performed on paved roads, the pavement shall be restored immediately after backfill and compaction with a temporary asphalt cold mix patch placed and maintained in a manner acceptable to the Engineer. However, the temporary patch must be replaced with permanent restoration within the time specified in Section 2-5.
2. **Temporary Hot Patch.** Shall be required on major arterials and on other roads during inclement weather.
3. **Hot Mix Asphalt (HMA) or Bituminous Surface Treatment (BST) Pavement.** Permanent restoration of HMA or BST pavement shall include placing HMA 3-inches thick or the same thickness as the existing pavement plus 1-inch, whichever is greater in accordance with the Utility Patch detail shown in Appendix C. The pavement shall be placed in maximum 3-inch compacted depth lifts per WSDOT standard specifications and machine rolled flush with existing pavement. Pavement edges shall be cleaned and heated prior to tacking with emulsified asphalt. Joints shall be sealed with hot asphalt cement.
4. **CC Pavement.** Permanent restoration of CC pavement shall be consistent with Section 5-05 of the WSDOT Standard Specifications and the Utility Patch detail shown in Appendix C when an entire panel is removed. CC pavement shall be placed with a standard paving section equal to the existing paving depth. The Engineer may specify the design age. Epoxy-coated tie bars shall be drilled and grouted into the existing pavement.

If less than an entire panel is removed, HMA utility patch procedures shall be followed with a HMA depth equal to the existing pavement depth. However, no portion of a CC panel may be left with a width that is less than 50 percent of the width of the existing panel.

5. **HMA on CC Pavement.** Restoration requirements for the condition where CC pavement has been previously overlaid with HMA pavement shall be similar to those outlined for CC pavement. The existing CC pavement shall be removed and restored using the standard Utility Patch detail shown in Appendix C. The HMA shall be cut back an additional four inches along the edge of the CC. The CC patch shall then be overlaid with Class B HMA to a depth equal the existing overlay.
6. **Top Course.** All pavement shall be placed on a 3/4-inch minus crushed surfacing top course with a two-inch minimum compacted depth. If the existing pavement depth is greater than six inches, the minimum compacted depth of crushed surfacing top course shall be equal to the depth of the existing pavement minus six inches.

7. **Longitudinal Cuts.** Longitudinal pavement cuts require that the entire affected lane be removed and replaced with appropriate amounts of base, crushed rock and pavement.
8. **Pavement Restoration Width.** The minimum width of pavement restoration will be as shown in the Utility Patch Detail shown in Appendix C. The restoration width will be wider, typically one lane width, to address any pavement issues that may exist adjacent to the utility work. Any broken, cracked, or alligatored pavement adjacent to the trenching work area shall be repaired and incorporated with the final patch or paving.

Should the construction equipment damage adjacent lanes during the utility installation, restoration on the impacted lanes will also be required.

5-6.3.10 Use and Placement of Steel Plating

Whenever steel plating is installed on County roadways, work will be provided in accordance with the following:

1. Notify County Inspector at least 48 hours in advance of placing steel plates in roadway
2. Dimensions: A minimum of 1-inch thick and large enough to allow minimum of 1 foot of bearing on three sides of excavation.
3. On plates that are not recessed, taper asphalt on all edges of steel plate from height of steel plate extending a minimum of 2 feet onto the existing road surface. The Engineer may require non-skid plate and/or the pinning of non-recessed plates.
4. If County forces must correct emergency condition due to excavation and plate placement, utility will be charged for cost of corrective measures required.

The Utility shall be responsible to ensure that the steel plating is properly installed and maintained. The Utility shall be responsible for any claims that may be associated with the use of steel plating.

5-6.4 Untrenched Construction

1. The length of untrenched construction shall extend a minimum of 6 feet from edge of pavement, or greater if specified by the Engineer, except that a 2-foot minimum may be permitted by the Engineer for service connections where conditions warrant.
2. Casing and pipelines to be installed under a road without disturbing the surface shall be made by using pushing or boring techniques approved by the Engineer. The minimum depth for pushing a casing or a pipeline shall be 36 inches for casing with a diameter less than 4 inches. For casings 4 inches or larger, the minimum depth of cover shall be 48 inches.

For all directionally drilled crossings, the minimum depth of cover shall be 48 inches unless otherwise approved by the Engineer.

3. Any over-excavation shall be backfilled, and any abandoned vaults or casings shall be backfilled or removed as directed by the Engineer.
4. Jetting under roadways shall not be permitted.

5-6.5 Plowing

Plowing of communication and electrical lines on or adjacent to existing roads by means of a vibratory plow may be allowed by the Engineer provided that the structural integrity of the roadway is not impaired and minimum depths of cover are achieved. Depth of existing utility facilities and drainage structures shall be determined before plowing.

Chapter 6

OVERHEAD UTILITY PROVISIONS

6-1 Power and Communication Lines

6-1.1 General

The underground installation of utilities is strongly encouraged except where not economically feasible, such as in the case of electric transmission lines. In areas where this is not practical, single-pole construction and joint use of the pole are generally desirable and should be used wherever feasible.

The utility shall permit the joint use and occupation of its poles or underground facilities placed in County rights-of-way to other utilities for just compensation. If the utilities are unable to agree to terms of joint use, they will be required by the County Engineer to enter into binding arbitration.

Additionally, utility will comply with all applicable federal, state, and local codes, rules and regulations, including Buy America provisions when required.

6-1.2 Clearances

6-1.2.1 General

The minimum clearances for overhead power and communication lines above the road and around bridges shall conform to the *National Electrical Safety Code*, or the State Department of Labor and Industries' *Electrical Construction Code*, whichever is greater. All clearances shall be measured at state *Electrical Construction Code* temperature and loading standards and shall comply with all other requirements of this code. The minimum clearance of overhead power lines from County-maintained luminaires shall be 10 feet.

6-1.2.2 Vertical

The minimum height of a road crossing shall be measured from the lowest portion of the line crossing the road. The minimum height of longitudinal lines shall be measured from the ground line.

6-1.2.3 Horizontal

See Subsections 5-1.3 and 5-5.1.2. Guy wires to ground anchors and stub poles shall not be placed between a pole and the traveled way unless approved by the Engineer.

6-2 Aesthetic Considerations

6-2.1 General

Utility lines shall be located using sound engineering judgment and in accordance with the rules, regulations and tariffs applicable to the serving utility. All utility installations shall be designed and constructed to minimize any adverse effect on existing roadside vegetation and other natural or man-made amenities. The indiscriminate cutting of trees or disfiguring of any features of aesthetic or scenic value shall not be permitted.

6-2.2 Utility Locations

New installation of overhead communication, power, or other utility should take into account aesthetic considerations when proposed within areas of scenic beauty or on rights-of-way through or adjacent to scenic strips, viewpoints, or historic sites. When the following conditions exist and with approval of the Engineer, utility installation may take precedence over aesthetic considerations.

1. Other utility locations are not available, are not practical, are unreasonably costly, or are less desirable from the standpoint of visual quality.
2. The location, design, and materials of the proposed installation will adequately protect the visual qualities of the area being traversed.

6-2.3 Herbicide Spraying

If a utility intends to use chemical sprays to control or kill weeds and brush on County rights-of-way, prior approval must be obtained from the Engineer. The Engineer may limit or restrict the types, amounts, and timing of applications. All chemicals must be approved by both state and federal regulatory agencies, and all applicators must be licensed with the State of Washington and abide by all state regulations. The utility shall be responsible for any drift of the spray that contacts vegetation on private property.

6-2.4 Cleanup

Refuse and debris resulting from the installation or periodic maintenance of the utility shall be removed and disposed of in accordance with the cleanup policy presented in Section 2-5.

6-3 Installations on Roadway Bridges and Structures

Utility attachment to roadway bridges and structures must be approved by the Engineer. Attachments shall conform to sound engineering considerations for the roadway structure's safe operation, structural capacity, maintenance, and appearance. The attachment shall be in accordance with Appendix D, *Bridge Utility Installation Guidelines*.

6-4 Street Lights

Franchised electrical utilities are allowed to own, operate, and maintain street or area lights within the County right-of-way under the provisions of their franchise agreement. Street lights shall be installed in accordance with the *Manual on Design Guidelines and Specifications for Road and Bridge Construction in Pierce County*.

Appendix A

GLOSSARY

Definitions

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

A

AASHTO

American Association of State Highway Transportation Officials

AC

Asphalt concrete

Accommodation

The installation of utility facilities along or across road right-of-way with the intent that they will occupy and jointly use the right-of-way

Annual Road Program

Scheduled County Road Fund projects for the current year of the Six-Year Road Program

Appurtenance

Equipment and/or accessories that are a necessary part of an operating utility system or subsystem

APWA

American Public Works Association

ATB

Asphalt Treated Base

B

Backfill

Replacement of excavated material with an approved material compacted as specified around and over a pipe, conduit, or casing.

Bedding

Placement of an approved material to provide structural support and protect a pipe, conduit, or casing.

BMPs

Best Management Practices. Structural and behavioral practices intended to minimize types and quantities of pollutants discharged to the environment.

Boring

Grade and alignment-controlled mechanical or other method of installing a pipe or casing under a road without disturbing the surrounding medium

Bridge Engineering

Pierce County Public Works Department, Transportation Improvement Section, Bridge Engineering

BST

Bituminous Surface Treatment

Bunching Cables

Installing new cables immediately adjacent to existing cables of the same utility to minimize right-of-way use.

Buy America

Projects that include Federal funding or any project defined in the Federal Record of Decision under the National Environmental Policy Act (NEPA) must meet the requirements of “Buy America” (23 CFR 635, 410, 23 USC 313). This provision applies to all products containing steel or iron permanently incorporated into the project.

C

Carrier

Pipe directly enclosing a transmitted fluid or gas.

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.

CC

Portland Cement Concrete

CDF

Controlled Density Fill

CFP

Capital Facilities Plan, part of the County's Comprehensive Plan, dated November 1994.

Coating

Protective material applied to the exterior of a pipe or conduit to prevent or reduce abrasion and/or corrosion damage.

Conduit

An enclosed tubular runway for protecting wires or cables

Coordination

A mutual agreement with work scope and schedule between all parties throughout the utility relocation activities. This applies to Preliminary, Final, and Construction Engineering phases. Utilities shall maintain direct contact with the Department, contractors and other utilities to determine the most efficient order and timing for performing the utility relocation work. Utilities shall adjust scheduling, utility relocation plans and activities to maximize efficiency of the relocation work in cooperation with other organizations.

County

The Pierce County Executive or his/her authorized representative, the County Engineer

Cover

Depth to top of pipe, conduit, casing or gallery below the grade of a road or ditch

CRP

County Road Project

D**Department**

Pierce County Public Works

Deviation

A formal approval by the Engineer to waive or alter a standard

Drain

Appurtenance to discharge accumulated liquids from casings or other enclosures.

E**Encasement**

Structural element surrounding a pipe or conduit for the purpose of preventing future physical damage to the pipe or conduit

Engineer

The County Engineer or authorized representative.

F**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.

I**Inspector**

The engineer or technician duly authorized or appointed by the County Engineer to provide inspection services for work in County rights-of-way.

M**Manhole**

An opening in an underground utility system into which workers or others may enter for the purpose of cleaning, testing, making installations, inspections, repairs and connections.

Monuments

As defined in WAC Chapter 332-120-020, Definitions

MUTCD

Part VI of the *Manual on Uniform Traffic Control Devices*, as adopted by WSDOT and published by the United States Department of Transportation, Federal Highway Administration, as adopted by WSDOT.

N**NPDES**

National Pollutant Discharges Elimination System. The part of the federal Clean Water Act which requires point source dischargers to obtain permits; these permits are administered by the Washington State Department of Ecology.

O**Open cut**

Any opening in a paved surface that is a continuous opening for access to the utility.

P

Pavement

The hard surfacing placed on a base course and subbase to support the traffic load and distribute it to the subgrade. Includes travelway, shoulders, and driveways within the right-of-way.

PCC

Pierce County Code

Pipe

A structural tubular product designed, tested, and produced for the transmittance of specific liquids and gases under specific conditions.

Plowing

Direct burial of utility lines by means of a “plow”-type mechanism that breaks the ground, places the utility line at a predetermined depth, and closes the break in the ground.

Policy

A broad principle, plan, or guideline supported by the Department. Not intended to be absolute, but to serve as a guide for determining a course of action.

Pressure

Internal gauge pressure in a pipe in pounds per square inch gauge (psig).

Private Utilities

Privately-owned, operated, and maintained utility facilities.

Procedure

The method, manner or sequence of steps to be followed in some process or course of action

Provision

A specific requirement or condition that must be followed.

R

RCW

Revised Code of Washington

Relocation

Planned change of the location of an existing facility to a more advantageous place without changing the character or general physical nature of the facility.

Replacement

Installation of a like element of a utility system or subsystem in the same or near-same physical location normally due to damage, wear or obsolescence of the element

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.

Right of Way

All property in which the county has any form of ownership or title and which is held for public road purposes, regardless of whether or not any road exists thereon or whether or not it is used, improved, or maintained for public travel.

Road

A facility providing public or private access including the roadway and all other improvements inside the right-of-way.

Roadway

An open, generally public way for the passage of vehicles, persons and animals. Limits include the outside edge of sidewalks, or curbs and gutters, or side ditches, including the appertaining shoulder and all slopes, ditches, channels, waterways, and other features necessary for proper drainage and protection within the right-of-way.

S

Shoulder

The portion of the roadway contiguous with the traveled way primarily to accommodate stopped vehicles for emergency use, and for lateral support of base and surface courses.

Short Side Service

Working on the same side of the road for less than 200 feet to connect a utility service. No road crossing is involved.

Six-Year Road Program

County Road Fund projects projected for the next six years as filed with the Secretary of the Department of Transportation.

Sleeve

Short casing through a pier, wall, or abutment of a highway structure.

Standard

A prescribed set of rules, conditions, or requirements concerned with the definition of terms; classification of components; delineation of procedures; specification of dimensions, materials, performance, design, or operation; description of fit and measurement of size; or measurement of quality and quantity in describing materials, products, systems, services, or practices.

Standard Specifications

The most current version of the *Standard Specifications for Road, Bridge and Municipal Construction* issued by the Washington State Department of Transportation and Washington State Chapter of the American Public Works Association.

Surface Treatments

Including, but not limited to, chip seal, slurry seal, seal coats, and fog seal.

T**TIP**

Transportation Improvement Program

Traffic Control

Those provisions necessary to safeguard the general public as well as all workers during the construction and maintenance activities performed on utility facilities within the right-of-way.

Transportation Element

Part of the County's Comprehensive Plan, dated November 1994.

Traveled Way

That portion of the roadway used for the movement of vehicles exclusive of the portion of the roadway width which is used, or available for parking of vehicles.

Trenched

Installation of a utility in an open excavation

U**UGS**

Utility in Good Standing. UGS utilities have demonstrated an ability to abide by the provisions in this document and are thereby eligible to receive a UGS certificate.

Untrenched

Installation of a utility without breaking the ground or pavement surface such as by jacking or boring.

Utility

(1) A privately, publicly, or cooperatively owned line, facility, or system for producing, transmitting, or distributing communications, cable television, power, electricity, light, heat, gas, oil, crude products, water, steam, waste, sanitary sewer, storm drainage, surface water drainage or any other similar commodity which directly or indirectly serves the public.
(2) The privately, publicly, or cooperatively owned company that owns the line, facility, or system.

Utility Relocation Plans

A three-dimensional drawing and/or table including a written narrative indicating the revised position of each utility element providing sufficient detail to determine that all known conflicts will be resolved.

Utility Right-of-Way Permit

A document issued under the authority of the Engineer that provides requirements and conditions for utility work at specific locations within the right-of-way.

V**Vent**

Appurtenance to discharge gaseous substances from casings or other enclosures.

W**WAC**

Washington Administrative Code

WSDOT

Washington State Department of Transportation

Appendix B
FORMS

FRANCHISE APPLICATION

FRANCHISE APPLICATION

TO THE PIERCE COUNTY COUNCIL
PIERCE COUNTY, WASHINGTON

Council Members:

(franchise name)
hereby applies to the Council of Pierce County, Washington, for a franchise to construct, maintain,
and operate _____ in, under,
(franchise type)
along and over the public roads and highways in Pierce County, Washington, as set forth in EXHIBIT
"A" hereto attached.

None of the roads over which authority is hereby requested for the construction, maintenance, and
operation of said system are within the limits of an incorporated city or town, and the said applicant
hereby respectfully requests the County Council to fix a time and place for the hearing of this
application and such steps taken as may be required by law or the practice of your Honorable Council
to authorize the granting of this franchise.

Dated _____, 20____

Respectfully submitted,

(sign and print)

Title _____

ADDRESS:

City/State/Zip: _____

Phone: (_____) _____

NOTE: THIS FRANCHISE APPLICATION MUST BE ACCOMPANIED BY AN EXHIBIT "A",
WHICH IS THE DESCRIPTION AND/OR MAP OF THE AREAS TO BE COVERED BY THE
FRANCHISE, AND BY A CHECK IN THE AMOUNT OF \$500.00. THE BALANCE OF THE
COST FOR PUBLICATION CHARGES WILL BE BILLED AFTER THE FRANCHISE HAS BEEN
GRANTED.

N:\WPFILES\WORDPROC\TGB\UTILITY\MANUAL\FRANCHISE APPLICATION.DOC

PERMIT BOND

BOND

Bond No. _____

KNOW ALL MEN BY THESE PRESENTS:

That we, _____, hereinafter called the Principal, and _____, as Surety, are jointly and severally held and firmly bound unto PIERCE COUNTY PUBLIC WORKS AND UTILITIES in the sum of \$ _____, lawful money of the United States of America, for the payment of which sum on demand we bind ourselves and our successors, heirs, administrators, or personal representatives as the case may be.

Dated at Tacoma, Washington, this _____ day of _____, 20 _____.

WHEREAS, _____ has applied for or will apply from time to time from date hereof to the Pierce County Public Works and Utilities Department for a permit, permits or permission to do work within the Right-of-Way of Pierce County, Washington.

NOW, THEREFORE, the said Principal shall during the continuance of such permit, permits, or permission faithfully perform and comply with all of the provisions of said permit, permits, or permission and shall indemnify and hold harmless PIERCE COUNTY PUBLIC WORKS AND UTILITIES from any and all claims, actions or damages of every kind and description which may accrue to or be suffered by any person or persons, corporations or property by reason of the performance of such work, character of materials used or manner of installation, maintenance and operation or by the improper occupancy of rights of way or public structure, and in case any suit or action is brought against said PIERCE COUNTY PUBLIC WORKS AND UTILITIES for damages arising out of or by reason of any of the above causes, the Principal, its successors or assigns will upon notice of commencement of such action, defend the same at its own sole cost and expense and will satisfy any judgment after the said suit or action shall have finally been determined. If said judgement is adverse to PIERCE COUNTY PUBLIC WORKS AND UTILITIES, then and in that event this obligation shall be void; but otherwise it shall be and remain in full force and effect.

This obligation is applicable to the period commencing _____ and ending _____, but may be canceled by the surety by its giving thirty (30) days written notice to the Principal and PIERCE COUNTY PUBLIC WORKS AND UTILITIES.

PRINCIPAL

SURETY

Signature of Principal

Name of Surety

Address

Address of Local Issuing Agency

Zip _____

Zip _____

Phone: (_____) _____

Phone: (_____) _____

N:\WPFILES\WORDPROC\TGB\UTILITY\MANUAL\BOND.doc

CERTIFICATE OF INSURANCE

CERTIFICATE OF INSURANCE

This is to certify to County of Pierce, Washington, that the following policies are in force for

Name of Insured _____

Address _____

Contract title and/or description of job: _____

1. COMMERCIAL GENERAL LIABILITY

A. Commercial General Liability Insurance and Commercial Automobile Liability Insurance with limits of not less than:

<u>COVERAGES</u>	<u>LIMITS OF LIABILITY</u>
<u>Commercial General Liability Insurance</u>	
1. Bodily Injury Liability	\$2,000,000 each occurrence \$4,000,000 aggregate
2. Property Damage Liability	\$2,000,000 each occurrence \$2,000,000 aggregate
OR Combined Single Limit Coverage	\$2,000,000
<u>Commercial Automobile Liability Insurance</u>	
1. Bodily Injury Liability	\$2,000,000 each person \$2,000,000 each occurrence
2. Property Damage Liability	\$2,000,000 each occurrence
OR Combined Single Limit Coverage	\$2,000,000

B. The following coverages are included in both Primary and Excess Liability Contracts:

a. Extended Bodily Injury	Yes <u>X</u>	No ___
b. Employees as Additional Insured	Yes <u>X</u>	No ___
c. Premises/Operations Liability (M&C)	Yes <u>X</u>	No ___
d. Contractor's Protective Liability	Yes <u>X</u>	No ___
e. Products and Completed Operations Liability (through guarantee period)	Yes <u>X</u>	No ___
f. Blanket Contractual Liability	Yes <u>X</u>	No ___
g. Broad Form Property Damage Liability	Yes <u>X</u>	No ___
h. Personal Injury, including coverages A, B, C with no employee exclusion	Yes <u>X</u>	No ___
i. Stop Gap or Employers Contingent Liability	Yes <u>X</u>	No ___
j. Automobile Liability, including coverage for owned, nonowned, leased, or hired vehicles	Yes <u>X</u>	No ___
k. Explosion, Collapse, Underground Damage (X.C.U.) as applicable	Yes <u>X</u>	No ___

CERTIFICATE OF INSURANCE (CONTINUED)

C. General Requirements of Policy(ies) shall include, but not limited to:

1. Pierce County is named as an additional insured as respects this contract and such insurance as is carried by the contractor is primary (over any insurance carried by Pierce County).
2. The policy shall contain the appropriate amount and types of coverages which are specified by the Contract.
3. The policy does not contain the following or similar wording: "This Certificate is issued as a matter of information only and confers no rights upon the Certificate holder".
4. In the event of nonrenewal, cancellation, or material change in the coverage provided, forty-five (45) days written notice shall be furnished the County of Pierce prior to the date of nonrenewal, cancellation or change, such notice to be sent to Pierce County Public Works, Tacoma Mall Office Building, 4301 South Pine Street, Suite 628, Tacoma, WA 98409.
5. Pierce County has no obligation to report occurrences unless a claim is filed with Pierce County; and Pierce County has no obligation to pay premiums.
6. The contractor's insurance policies contain a "cross liability" endorsement substantially as follows:

The inclusion of more than one insured under this policy shall not affect the rights of any Insured as respects any claim, suit or judgment made or brought by or for any other Insured or by or for any employee of any other Insured. This policy shall protect each Insured in the same manner as though a separate policy had been issued to each, except that nothing herein shall operate to increase the company's liability beyond the amount or amounts for which the company would have been liable had only one Insured been named.

<u>Insurance Company(ies)</u>	<u>Policy #</u>	<u>Effective</u>	<u>Expires</u>

I, _____, hereby certify that I am an Authorized Representative of the above named insurance company(ies); that I have read the foregoing Certificate of Insurance and know the contents thereof; and that the policies of insurance listed above provide the insurance coverage required by this Certificate of Insurance.

Authorized Representative

Subscribed and sworn to before me this _____ day of _____, 20__.

Notary Public in and for the State of
Washington, residing at _____

The undersigned further certifies that the above signed is his/her authorized insurance representative.

Contractor

CERTIFICATE OF INSURANCE (CONTINUED)

2. SPECIAL INSURANCE

The following coverages are provided as indicated:

A. Workman's Compensation Act of the State of Washington
(Account No. _____).

Yes X No ___

B. U.S. Harbor Workers/Longshoremen and Jones Act

Yes ___ No X

C. All Risk Builder's Risk

Yes ___ No X

D. Pollution Liability

Yes ___ No X

<u>Insurance Company(ies)</u>	<u>Policy #</u>	<u>Effective</u>	<u>Expires</u>
-------------------------------	-----------------	------------------	----------------

I, _____, hereby certify that I am an Authorized Representative of the above named insurance company(ies); that I have read the foregoing Certificate of Insurance and know the contents thereof; and that the policies of insurance listed above provide the insurance coverage required by this Certificate of Insurance.

Authorized Representative

Subscribed and sworn to before me this _____ day of _____, 20__.

Notary Public in and for the State of
Washington, residing at _____

The undersigned further certifies that the above signed is his/her authorized insurance representative.

Contractor

UTILITY IN GOOD STANDING CERTIFICATE



Pierce County
Department of Public Works and Utilities
Office of County Engineer

This Is To Certify That
(Utility Co Name)

Is Hereby Granted the Designation of
Utility in Good Standing
*for complying with all of the provisions of Pierce County's
Policy on Accommodating Utilities in County Right-of-Way
and therefore are entitled to all the rights and privileges
accorded to a Utility in Good Standing as provided in the
Manual on Accommodating Utilities in Pierce County
Right of Way. This certification shall remain in effect for the
length of the franchise or until revoked.*

Issued this _____ day of _____, 20__.

Seal

Brian D. Stacy, P.E., County Engineer

PERMIT FOR TEMPORARY ROAD CLOSURE



Pierce County
Public Works and Utilities
 2702 South 42nd Street, Suite 201
 Tacoma WA 98409
 (253) 798-3687 FAX (253) 798-4903

PERMIT FOR TEMPORARY ROAD CLOSURE

Date: _____

ROAD TO BE CLOSED		Rd SHOP DIST
APPLICANT	PHONE	FAX
MAILING ADDRESS		
CITY	STATE	ZIP
SIGNATURE	CONTACT PERSON	
LOCATION	SECT/TWNSHP/RANGE	/ / W.M.
REQUESTED DATES & TIME		
PURPOSE OF CLOSURE _____		

PLEASE READ THE FOLLOWING

Attach Map of Detour Route

Permit Conditions and Engineer's Instructions

- PERMITTEE MUST NOTIFY THE FOLLOWING AT LEAST 72 HOURS PRIOR TO CLOSING OF THE RIGHT-OF-WAY:**
 - P.C. Sheriff's Department
 - Local school district(s)
 - Pierce Transit
 - WA State Patrol
 - U.S. Postal Service
 - Affected home owners/business operators
 - Other: _____
- Must notify Fire District Number _____ at (_____) _____ 72 hours in advance, of the date of closure and completion date.
- Detour signs, traffic devices, and required lighting will be placed as necessary for the public safety by the Permittee.
- Detour signing as per M.U.T.C.D.
- Allow local and emergency vehicle access.
- _____
- _____
- Closure is authorized for _____ through _____.

Authorization

Closure Approved and so Ordered this _____ day of _____, 20_____.

 County Engineer

AFFIDAVIT OF CLOSURE POSTING

AFFIDAVIT OF POSTING

STATE OF WASHINGTON }
 }
County of PIERCE } ss.

_____, being first duly sworn on oath deposes and says:

That he/she is a citizen of the United States of America and the State of Washington, residing in Pierce County, Washington, and more than twenty-one years of age;

That he/she on the _____ day of _____, 20____, upon direction of the County Engineer, posted copies of the attached "Notice of Temporary Road Closure" on:

_____ Pierce County, Washington, as follows, to wit:
(Road Name)

A copy of the attached Notice of Temporary Road Closure has been posted at each end of the aforesaid road segment.

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public in and for the State
of Washington, residing at Tacoma,
Washington

NOTIFICATION & COMPLETION FORM

Class B Notification & Completion Form

Notification:

Fill-in information in double-lined boxes



Completion:

Fill in information under "Completion"

<i>ESTIMATED WORKING PERIOD</i>
Start Date: _____
Completed Date: _____
Revised Start Date: _____
Revised Complete Date: _____

Mailing Address:
2702 South 42nd Street - Suite 201
Tacoma, Washington 98409-7322

Physical Address:
2401 South 35th Street - Room 150
Tacoma, Washington 98409-7485

*Email: pcutilrowpermit@co.pierce.wa.us
*Permit Office (253)-798-4824
*FAX (253) 798-4903

<i>FOR COUNTY USE ONLY</i>
Notification Received _____
Completion Received _____
Internal Number _____
Area Inspector _____

Form must be in permit Office before 3:00 p.m. the prior business day before starting any of the work described herein.

<i>UTILITY INFORMATION</i>
Utility Name: _____ W.O. / J.O. _____
Contact Person: _____ Phone () _____ Fax () _____
Form Submitted By: _____ Signature _____ Date _____

The above signed certifies that all information submitted on this form is true and correct; that the above named utility is currently certified as a "Utility in Good Standing", franchised to work at the work location described herein, and properly bonded to work in Pierce County right-of-way; and that the work conditions described herein will be met.

<i>WORK DESCRIPTION</i>
<div style="float: right; text-align: right; padding-right: 20px;"> Est. Initial Pavement Cut: Length ____ ft. Width ____ ft. </div>

<i>WORK LOCATION</i>	Section _____ Township _____ Range _____
ADDRESS or STREET & AVENUE of right-of-way _____	

<i>WORK CONDITIONS</i>	<i>The following work conditions shall be forwarded unless otherwise approved by the County Engineer.</i>
<input type="checkbox"/> Completed according to all provisions in the "Manual on Accommodating Utilities in Pierce County Rights-of-Way,"- Fifth Edition.	
<input type="checkbox"/> Performed only in Pierce County Right-of-Way; and all restoration work shall be guaranteed for one year.	
<input type="checkbox"/> Related in no way to the construction or maintenance of any Pierce County road project.	
<input type="checkbox"/> Started on or after the indicated start date and completed on or before the indicated completion date.	
<input type="checkbox"/> Notify permit office of any change in estimated working period dates.	
<input type="checkbox"/> Inspector shall be notified as soon as possible if there are any problems complying with conditions.	
<input type="checkbox"/> Contact Traffic Signal Office at 798-8000 if digging within 500' of traffic signal.	

<i>COMPLETION</i>	<i>Complete this section and resubmit this form within 3 days after all work has been accomplished.</i>
Name: _____ Signature _____ Date _____	
Title: _____ Phone () _____ Fax () _____	

The above signed certifies that the work conditions described herein were met

<i>INSPECTORS COMMENTS</i>
<div style="text-align: right; padding-right: 20px;"> Inspector's Signature _____ Date _____ </div>

UTILITY RIGHT-OF-WAY PERMIT

Class C Utility Right-Of-Way Permit

FOR COUNTY USE ONLY	Date Application Received _____ Date Permit Activated _____ Contractor _____ Contact Name _____ Phone () _____ Date Reported Completed _____ Non-Compliance Report _____ [] CMF [] ECMF [] CC [] Purdy	 Pierce County Public Works <i>Mailing Address:</i> 2702 South 42nd Street - Suite 201 Tacoma, Washington 98409-7322 <i>Physical Address:</i> 2401 South 35th Street - Room 150 Tacoma, Washington 98409-7485 *Email: pcutilrowpermit@co.pierce.wa.us *Permit Office (253)-798-4824 *FAX (253) 798-4903	Permit Number _____ <input type="checkbox"/> Expiration Date _____ (Permit is void if not activated before above date) <p style="text-align: center;">*NOTIFY before starting work by 8:30 a.m. the previous business day</p> Submit three (3) plans along with this form											
	PLEASE SELECT ONE: UGS Non-UGS Sewer Project Cancellation Emergency Other _____													
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">PERMITTEE</td> <td>Name _____</td> <td>Work Order # _____</td> </tr> <tr> <td></td> <td>Address _____</td> <td>City _____ State _____ Zip _____</td> </tr> </table>			PERMITTEE	Name _____	Work Order # _____		Address _____	City _____ State _____ Zip _____					
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_____	Signature _____	Date _____												

dproc\Class C Utility Permit.doc

Revised May 2016

UTILITY RIGHT-OF-WAY PERMIT (CONTINUED)

1. **Restoration Requirements** *Unless otherwise directed or approved by the Engineer or this Permit, the Permittee shall:*
 - a. **Trench**--Provide at least 36 inches of cover over the top of any underground pipe or conduit installed in the County right-of-way. Cover is measured from the top of the pipe to the existing groundline. **Backfill** trenches in the pavement area with 2-1/2" minus imported or native gravel base per patch details PC.A7.1 and PC.A7.2. Each lift shall be compacted to 95% of maximum dry density as determined by ASTM D1557.
 - b. **Steel Plates**--Steel plates may be placed over unfinished portions of work at the end of each day if approved by the Engineer. Steel plates must be anchored with bolts and shimmed at all edges. Permittee shall be responsible for maintaining steel plates, associated anchors, and asphalt shims 24 hours a day, 7 days a week. Permittee shall provide and maintain appropriate signage for steel plating.
 - c. **Pavement--Restore** any pavement cuts using hot mix asphalt (HMA) CI 1/2 Inch, PG 58-22. Class "B" asphalt concrete or cement concrete per patch details PC.A7.1 or PC.A7.2, experienced personnel and adequate equipment. **Place** either hot mix asphalt permanent patch or cold mix asphalt temporary patch immediately after backfilling any trench in the pavement area. Any temporary restorations shall be made permanent within 45 working days from the date of the temporary restoration. **Cut** pavement in rectangular or circular shapes, constructed to be parallel with and perpendicular to the road centerline.
 - d. **Right-of-Way--Remove** all rubbish, debris, and surplus material from the County right-of-way that was left due to the work. **Cleanup** excavation and debris material concurrently with the burying operation whether by plowing or trenching. At no time shall there be debris and excavation material extending along a line for more than 500 feet. **Restore** right-of-way as near as possible to its original state before the permitted work began. **Place** crushed rock on any roadway shoulders that are disturbed during construction. **Complete** all work within the indicated number of working days.
2. **General Requirements**--*Unless otherwise directed or approved by the Engineer or this Permit, the Permittee shall:*
 - a. **Traffic Control--Maintain** at least one lane of traffic at all times unless a road closure permit has been obtained. **Place** traffic signs in accordance with the latest edition of the "Manual on Uniform Traffic Control Devices" or as directed by the Engineer. **Erect**, maintain, and provide proper lighting on such barriers and warning signs during the progress of the work as may be necessary or as may be directed by the Engineer for the protection of the traveling public. **Make** no excavation and place no obstacle within the limits of a County road in such a manner as to interfere with the travel over said road.
 - b. **Working Hours--Perform** the work only from 7:00 a.m. to 6:00 p.m. on non-holiday weekdays, Monday through Friday, except for emergencies, or as otherwise approved by the Engineer. County holidays include January 1, 3rd Monday in January, 3rd Monday in February, last Monday in May, July 4, 1st Monday in September, November 11, 4th Thursday and Friday in November, and December 25. When a holiday falls on a Saturday or Sunday, the preceding Friday or the following Monday is observed, respectively. Requests for working after hours shall be submitted to the Engineer at least one week before the after-hours work is scheduled to begin. The Permittee shall sign an "After-Hours Memorandum Agreement" to reimburse the County for any overtime costs incurred by the County for inspection of the work after hours.
 - c. **Miscellaneous--Provide** a performance bond in the amount set by the Engineer for the County's benefit to insure compliance with all terms and conditions of this Permit. **Provide** an insurance policy approved by the Pierce County Risk Management Department prior to starting the work. **Comply** with the latest edition of the Washington State Electrical Code, Washington State Department of Transportation Standards and Standard Specifications for Road and Bridge Construction, Civil Aeronautics Administration specifications, and all other applicable laws and regulations. **Perform** the work to the satisfaction of the Engineer. Any of the work not completed according to the provisions set forth in this Permit, may be completed by the County and charged to the Permittee.
3. **Other Conditions**
 - a. In accepting this Permit, the Permittee agrees to protect the County and save it harmless from all claims, actions or damages of every kind a description which may accrue to or be suffered by any person or person, corporation or property by reason of the performance of any such work, character of materials used or manner or installation, maintenance and operation or by the improper occupancy of right-of-way or public place or public structure, and in case any suit or action is brought against said County for damages arising out of any of the above causes, the petitioner, his successors or assigns will upon notice to him or them of commencement of such action, defend the same at his or their own sole cost and expense and will satisfy judgment after the said suit or action shall have finally been determined if adverse to the County.
 - b. If the work done under this Permit interferes with the drainage of the County roads, or causes damage, the Permittee shall wholly and at his own expense make such provision as the Engineer may direct to take care of said drainage and/or damage.
 - c. The Engineer hereby reserves the right to order the change of location or the removal of any structure or structures authorized by this Permit, at any time. Said change or removal shall be made at the sole expense of the Permittee.
 - d. All permitted changes, reconstruction or relocation by the Permittee shall be done in such manner as will cause the least interference with any County work. The County shall in no way be held liable for any damage to the Permittee by reason of any such work by the County, its agents or representatives, or by the exercise of any rights by the County upon the roads, streets, public places or structures in question.
 - e. The Permittee recognizes and agrees that it is responsible for and will make at its own expense any changes that may be required in the location of any utility constructed under this Permit due to any reconstruction, improvement, or maintenance of the roadway and/or other appurtenances including drainage facilities within the right-of-way and/or any damage that may be done the roadway or right-of-way or user of the road that may in any way be attributed by the Engineer to the utility installation or operation.
 - f. This Permit or privilege shall not be deemed or held to be an exclusive one and shall not prohibit the County from granting other permits or franchise rights like or other nature to public or private utilities, nor shall it prevent the County from using any of its roads, streets, or public places, or affect its right to full supervision and control over all or any part of them, none of which is hereby surrendered.
 - g. The Engineer may revoke, annul, change, amend, amplify, or terminate this Permit or any of the conditions herein enumerated if Permittee fails to comply with any or all of its provisions, requirements and regulations as herein set forth.
 - h. In accepting this Permit, the Permittee agrees that any damage or injury done to the property of the Permittee or any expense incurred by him through the operation of a contractor, working for the County, or of any County employee, shall be at the sole expense of the Permittee.
4. **Definitions**
 - a. *Engineer* The Pierce County Engineer or an authorized representative.
 - b. *Permittee* The party or parties to whom this permit is issued, or their successors and/or assigns.
 - c. *County* The County of Pierce.
 - d. *Work* The work herein contemplated and approved by this Permit.

dproc\Class C Utility Permit.doc

Revised May 2016

PERMIT ACTIVITY FORM FOR UTILITY RIGHT-OF-WAY WORK

Class C Permit Activity Form FOR UTILITY RIGHT-OF-WAY WORK



Mailing Address:
2702 South 42nd Street - Suite 201
Tacoma, Washington 98409-7322

*Email: pcutilrowpermit@co.pierce.wa.us
*Permit Office (253)-798-4824
*FAX (253) 798-4903

UTILITY INFORMATION

Complete this section:

Name of Company _____ Current Date _____
 Contact Person _____ Phone () _____ Fax () _____
 Contractor _____ Phone () _____ Cell () _____
 Form submitted By _____ Signature/Title _____

ACTIVATIONS

Permit Number	Address	Activation Date

COMPLETIONS

Permit Number	Address	Completion Date

Activity form Revised May 2016

UTILITY RIGHT-OF-WAY PERMIT

Class D Utility Right-Of-Way Permit

FOR COUNTY USE ONLY	Date Application Received _____ (Permit is void if not activated within three months)	 Pierce County Public Works <i>Mailing Address:</i> 2702 South 42nd Street - Suite 201 Tacoma, Washington 98409-7322 <i>Physical Address:</i> 2401 South 35th Street - Room 150 Tacoma, Washington 98409-7485 *Email: pcutilrowpermit@co.pierce.wa.us *Permit Office (253)-798-4824 *FAX (253) 798-4903	Permit Number _____ <input type="checkbox"/> Expiration Date _____ (Permit is void six months from activation date)
	Date Permit Activated _____		*NOTIFY before starting work by 8:30 a.m. the previous business day
	Contractor _____ Contact Name _____ Phone () _____ Date Reported Completed _____ Non-Compliance Report _____ <input type="checkbox"/> CMF <input type="checkbox"/> ECMF <input type="checkbox"/> CC <input type="checkbox"/> Purdy		Submit three (3) sets of plans along with this form
	PLEASE SELECT ONE: UGS Non-UGS Cancellation Emergency Other _____		
PERMITTEE Name _____ Work Order # _____ Address _____ City _____ State _____ Zip _____			
WORK PERMITTED <i>Permission to perform the following work in Pierce County Right-of-Way is hereby granted subject to all provisions on this form. Include pole numbers and highlight poles on the plans</i>			
WORK LOCATION Section _____ Township _____ Range _____ ADDRESS or STREET & AVENUE of right-of-way _____			Est. Working Days _____ Est. # of Poles _____
PERMITTEE'S ACCEPTANCE <i>The undersigned has read, understands, and accepts the terms, conditions, fees and liquidated damages set forth on this document.</i> Name _____ Signature _____ Date _____ Title _____ Phone () _____ Fax () _____			
WORK CONDITIONS <i>Area Inspector:</i> [] _____ [X] Contact Traffic Signal Office at 798-8000 if digging within 500' of traffic signal. [X] Activate the permit before the permit expiration date (see top right). [X] Notify the Permit Office before 8:30 a.m. the previous business day before starting any work and notify when work is completed in the right-of-way. [X] Notify the inspector if there are any problems complying with any of these conditions. [X] Notify the One Call Center at (800) 424-5555 at least two business days before excavating. [X] Comply with all of the conditions and provisions on the reverse side of this form. [X] Comply with the "Manual on Accommodating Utilities in Pierce County Rights-of-Way,"- Fifth Edition. [X] Keep a copy of this permit and approved plans at the worksite at all times. [] In accordance with the franchise, the utility is responsible for all damages due to failure to relocate in a timely manner.			
FEES Additional fees may apply			
Permit Fee \$ _____		'D' Work	Permit Area not to exceed one (1) mile in diameter 'D' Work = UGS is \$150.00 Non-UGS is \$900.00
Fee Total \$ _____			
COUNTY'S APPROVAL <i>The undersigned is authorized by the County Engineer to issue this permit.</i> Name: _____ Signature _____ Date _____			
INSPECTORS COMMENTS Work is physically complete and accepted: Signature _____ Date _____			

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Revised May 2016

UTILITY RIGHT-OF-WAY PERMIT (CONTINUED)

1. **Restoration Requirements** *Unless otherwise directed or approved by the Engineer or this Permit, the Permittee shall:*
 - a. **Trench**--Provide at least 36 inches of cover over the top of any underground pipe or conduit installed in the County right-of-way. Cover is measured from the top of the pipe to the existing groundline. Backfill trenches in the pavement area with 2-1/2" minus imported or native gravel base per patch details PC.A7.1 and PC.A7.2. Each lift shall be compacted to 95% of maximum dry density as determined by ASTM D1557.
 - b. **Steel Plates**--Steel plates may be placed over unfinished portions of work at the end of each day if approved by the Engineer. Steel plates must be anchored with bolts and shimmed at all edges. Permittee shall be responsible for maintaining steel plates, associated anchors, and asphalt shims 24 hours a day, 7 days a week. Permittee shall provide and maintain appropriate signage for steel plating.
 - c. **Pavement**--Restore any pavement cuts using hot mix asphalt (HMA) C1 1/2 Inch, PG 58-22. Class "B" asphalt concrete or cement concrete per patch details PC.A7.1 or PC.A7.2, experienced personnel and adequate equipment. Place either hot mix asphalt permanent patch or cold mix asphalt temporary patch immediately after backfilling any trench in the pavement area. Any temporary restorations shall be made permanent within 30 working days from the date of the temporary restoration. Cut pavement in rectangular or circular shapes, constructed to be parallel with and perpendicular to the road centerline.
 - d. **Right-of-Way**--Remove all rubbish, debris, and surplus material from the County right-of-way that was left due to the work. Cleanup excavation and debris material concurrently with the burying operation whether by plowing or trenching. At no time shall there be debris and excavation material extending along a line for more than 500 feet. Restore right-of-way as near as possible to its original state before the permitted work began. Place crushed rock on any roadway shoulders that are disturbed during construction. Complete all work within the indicated number of working days.
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 - h. In accepting this Permit, the Permittee agrees that any damage or injury done to the property of the Permittee or any expense incurred by him through the operation of a contractor, working for the County, or of any County employee, shall be at the sole expense of the Permittee.
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 - d. *Work* The work herein contemplated and approved by this Permit.

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Revised May 2016

PERMIT ACTIVITY FORM FOR UTILITY RIGHT-OF-WAY WORK

Class D Permit Activity Form FOR UTILITY RIGHT-OF-WAY WORK



Mailing Address:
2702 South 42nd Street - Suite 201
Tacoma, Washington 98409-7322

*Email: pccutilrowpermit@co.pierce.wa.us
*Permit Office (253)-798-4824
*FAX (253) 798-4903

UTILITY INFORMATION

Complete this section:

Name of Company _____ Current Date _____
Contact Person _____ Phone () _____ Fax () _____
Contractor _____ Phone () _____ Cell () _____
Form submitted By _____ Signature/Title _____

ACTIVATIONS

Permit Number	Address	Activation Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

COMPLETIONS

Permit Number	Address	Completion Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Activity.frm Revised May 2016

AFTER HOURS MEMORANDUM AGREEMENT

[Current Date]

[Contact Name], [Title]

[Franchise Name]

[Address]

[City], [State] [Zip Code]

Subject: After Hours Memorandum Agreement
[Work Description and Location]
[Day of Week], [Date of Work]
[Permit Number/Work Order Number]

Dear [Contact Name]:

Your request for permission to work after hours on the above described work is hereby approved contingent on an authorized representative of your utility signing below signifying agreement to:

1. _____
Pay approximately \$[Estimated Overtime Costs] for an estimated [Estimated Overtime Hours] hours inspection by Pierce County personnel charged to County Purchase Order number [Purchase Order Number]. These costs will be billed directly to the above address unless otherwise indicated here: _____
2. Keep the following contractor on site at all times during the after-hours work: [Contractor Name], [Telephone Number].
3. Notify the Permit Office, 2401 South 35th Street, Room 150, Tacoma, Washington, 98409-7485, telephone (253) 798-4824, FAX (253) 798-4903, and no later than 9:00 a.m. one business day before the after-hours work starts.
4. Notify all affected utilities before the after-hours work starts.
5. Deliver a signed copy of this letter to the Permit Office at least two business days before the after-hours work starts.

Sincerely,

Brian D. Stacy, P.E.
County Engineer

Accepted by:
Signature:

Name:

Title:

PERMIT TO REMOVE OR DESTROY MONUMENT

APPLICATION FOR PERMIT TO REMOVE OR DESTROY A SURVEY MONUMENT

PERMIT NO.

You are hereby authorized to remove or destroy
the described survey monument(s):

AUTHORIZING SIGNATURE/DATE
(DNR or Other Authorizing Agency)

APPLICANT INFORMATION:

NAME:

TELEPHONE NO:

DATE:

COMPANY OR AGENCY NAME AND ADDRESS:

I estimate that this work will be finished by (date) _____.

_____ I request a variance from the requirement to reference to the Washington Coordinate System. (Please provide your justification in the space below.)

The variance request is ___ approved; ___ not approved. (FOR DNR USE ONLY) Reason for not approving:

MULTIPLE MONUMENTS:

_____ Check here if this form is being used for more than one monument. You must attach separate sheets showing the information required below for each monument affected. You must seal, sign and date each sheet.

INDEXING INFORMATION FOR AN INDIVIDUAL MONUMENT:

- 1) THE MONUMENT IS LOCATED IN: SEC _____ TWP _____ RGE _____ 1/4-1/4 _____
- 2) ADDITIONAL IDENTIFIER: (e.g., BLM designation for the corner, street intersection, plat name, block, lot, etc.)

MONUMENT INFORMATION: Describe: 3) the monument/accessories found marking the position, 4) the temporary references set to remonument the position (include coordinates when applicable), and 5) the permanent monument(s) to be placed on completion (if a permanent witness monument(s) is set include the references to the original position).

SEAL/SIGNATURE/DATE SIGNED

(Form prescribed 2/94 by the Public Land Survey Office, Dept. of Natural Resources, pursuant to RCW 58.24.040 (8).)

PERMIT TO REMOVE OR DESTROY MONUMENT (CONTINUED)

COMPLETION REPORT FOR MONUMENT REMOVAL OR DESTRUCTION

(TO BE COMPLETED AND SENT TO THE DNR AFTER THE WORK IS DONE.)

____ I have perpetuated the position(s) as per the detail shown on the application form.

SEAL/SIGNATURE/DATE SIGNED

OR

____ I was unable to fulfill the plan as shown on the application form. Below is the detail of what I did do to perpetuate the original position(s). (If the application covered multiple monuments attach sheets providing the required information. Seal, sign and date each sheet.)

SEAL/SIGNATURE/DATE SIGNED

ELECTRONIC PLANS

UTILITY COMPANY AGREEMENT NOT TO RELEASE ELECTRONIC FILES 4-20C

PIERCE COUNTY PUBLIC WORKS OFFICE OF THE COUNTY ENGINEER (APPLICABLE) DIVISION

TRANSFER OF ELECTRONIC MAPS/PLANS TO UTILITY COMPANIES

CRP (XXXX)
(Project Name)
(Project Limits)

In order to obtain maps/plans and related data in electronic format for the above-referenced project, the Utility Company listed below agrees that the maps/plans and related data are the property of Pierce County Public Works. The Utility Company and their consultants/contractors will use the maps/plans and related data only for the purpose of supplying utility information to the benefit of the County. The Utility Company further agrees that these electronic files will not be released to any other individual or entity except consultants/contractors working for the utility.

Utility Company

Representative

Date

Errors and discrepancies can be inadvertently introduced into electronic media by differing hardware, software, and operators. Recognizing this, your use of electronic media acknowledges that use of information contained in the media is at your sole risk and without liability, risk, or legal exposure to Pierce County. Furthermore, you shall to the fullest extent permitted by law defend, indemnify, and hold harmless Pierce County from and against demands, losses, expenses, damages, penalties, and liabilities of any use of the electronic media by you or third party. All electronic media will remain the property of Pierce County. Your use of the electronic media shall constitute an acceptance of the above. It is agreed and understood that this document does not prohibit the release of maps/plans or related data if the production or release of the documents is required by law.

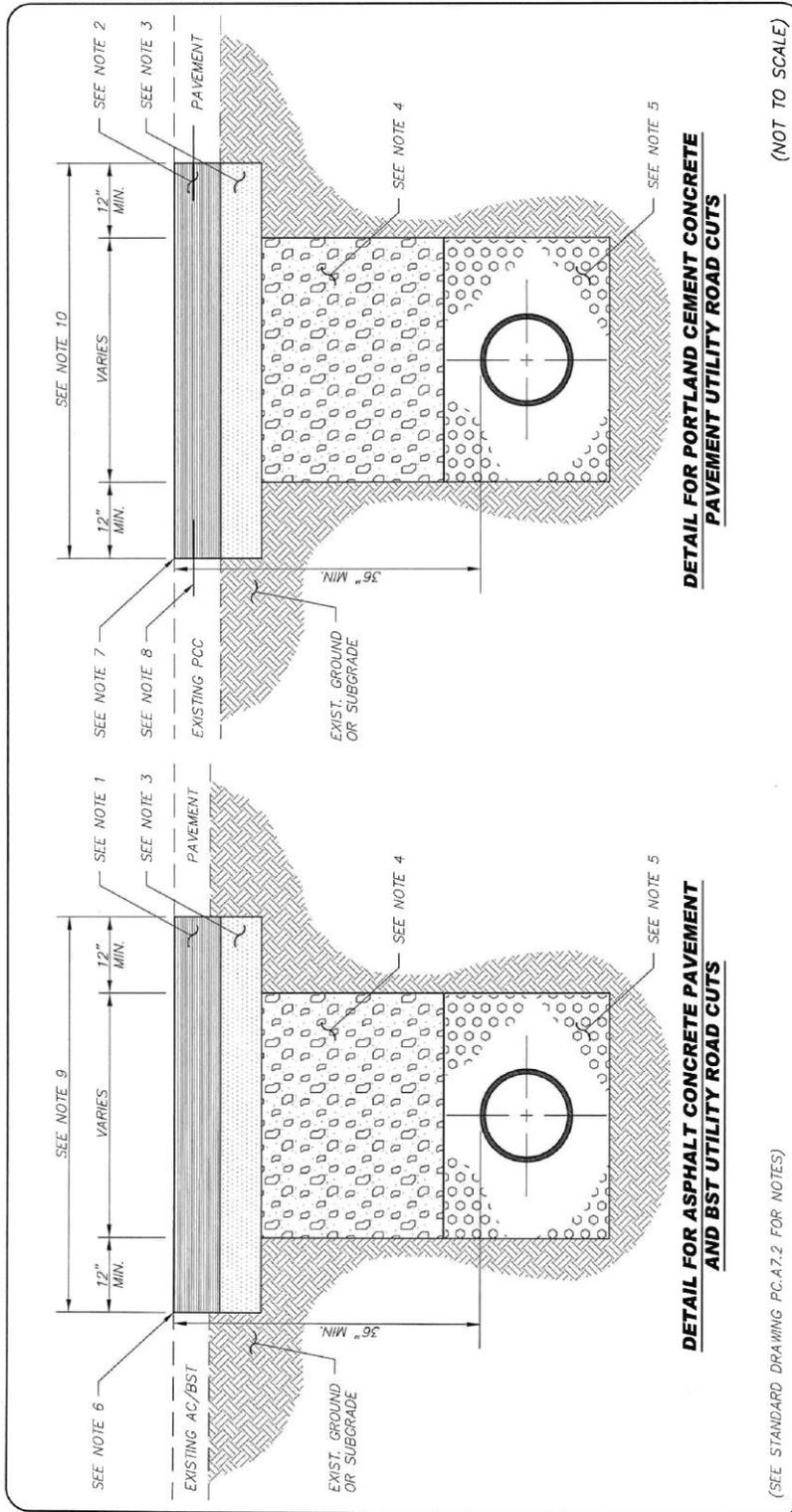
Revised 7/31/15

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Appendix C
STANDARD DRAWINGS

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PC.A7.1 UTILITY PATCH DETAIL SHEET 1



UTILITY PATCH
SHEET 1 OF 2

PC.A7.1

BRIAN D. STACY, P.E.
COUNTY ENGINEER

Office of the County Engineer

Pierce County
Public Works and Utilities
Office of the County Engineer
Tacoma Mall Office Building
4301 South Pine Street, Suite 446
Tacoma, Washington 98409-7207
An APWA Accredited Agency

PC.A7.2 UTILITY PATCH DETAIL SHEET 2

NOTES:

- 1) HOT MIX ASPHALT (HMA) CL. 1/2 IN. PG 64-22, WITH MINIMUM COMPACTED DEPTH OF 3" OR EXISTING PAVEMENT DEPTH PLUS 1", WHICHEVER IS GREATER. PLACE IN LIFTS WITH A MAXIMUM COMPACTED DEPTH OF 3" PER WSDOT STANDARD SPECIFICATIONS 5-04, AND MACHINE ROLL FLUSH WITH EXISTING PAVEMENT.
- 2) PORTLAND CEMENT CONCRETE PAVEMENT WITH A STANDARD PAVING SECTION EQUAL TO THE EXISTING PAVEMENT DEPTH. PLACE PER WSDOT STANDARD SPECIFICATIONS 5-05. THE ENGINEER MAY SPECIFY THE DESIGN AGE. ANY ASPHALT CONCRETE COVERING THE PORTLAND CEMENT CONCRETE SHALL BE CUT BACK AN ADDITIONAL 4" AND REPLACED WITH HMA CL. 1/2 IN. PG 64-22, COMPACTED TO A DEPTH EQUAL TO THAT OF THE EXISTING ASPHALT CONCRETE PAVEMENT, OR PUT CSBC AS PREFERRED ALTERNATIVE.
- 3) CRUSHED SURFACING TOP COURSE MATCH EXISTING 2" MINIMUM DEPTH, COMPACTED TO 95% MAXIMUM DENSITY.
- 4) IMPORTED OR NATIVE MATERIAL COMPACTED TO 95% MAXIMUM DENSITY. THE MATERIAL SHALL BE ESSENTIALLY FREE FROM VARIOUS TYPES OF WOOD WASTE OR OTHER EXTRANEOUS OR OBJECTIONABLE MATERIALS. IT SHALL HAVE SUCH CHARACTERISTICS OF SIZE AND SHAPE THAT IT WILL COMPACT READILY AND SHALL MEET THE FOLLOWING TEST REQUIREMENTS:

SIEVE SIZE	PERCENT PASSING
4" SQUARE	100
2" SQUARE	75-100
U.S. No. 4	22-100
U.S. No. 200	0-10
DUST RATIO: % PASSING U.S. No. 200	2/3 MAX.
% PASSING U.S. No. 40	30 MIN.

ALL PERCENTAGES ARE BY WEIGHT.
THE MATERIAL RETAINED ON A U.S. No. 4 SIEVE SHALL CONTAIN NOT MORE THAN 0.20 PERCENT BY WEIGHT OF WOOD WASTE. ANY NATIVE MATERIAL USED SHALL BE TESTED FOR COMPACTION AND/OR GRADATION AS REQUIRED BY THE ENGINEER.

- 5) BEDDING MATERIAL COMPACTED TO 95% MAXIMUM DENSITY SHALL CONSIST OF CRUSHED, PROCESSED, OR NATURALLY OCCURRING GRANULAR MATERIAL. IT SHALL BE FREE FROM VARIOUS TYPES OF WOOD WASTE OR OTHER EXTRANEOUS OR OBJECTIONABLE MATERIALS. IT SHALL HAVE SUCH CHARACTERISTICS OF SIZE AND SHAPE THAT IT WILL COMPACT AND SHALL MEET THE FOLLOWING SPECIFICATIONS FOR GRADING AND QUALITY:

SIEVE SIZE	PERCENT PASSING
1-1/2" SQUARE	100
1" SQUARE	75-100
5/8" SQUARE	50-100
U.S. No. 4	20-80
U.S. No. 200	3-24
U.S. No. 400	10.0 MAX
SAND EQUIVALENT	35 MIN.

IF, IN THE OPINION OF THE ENGINEER, THE NATIVE GRANULAR MATERIAL IS FREE FROM WOOD WASTE, ORGANIC MATERIAL, AND OTHER EXTRANEOUS OR OBJECTIONABLE MATERIALS, BUT OTHERWISE DOES NOT CONFORM TO THE SPECIFICATIONS FOR GRADING AND SAND EQUIVALENT, IT MAY BE USED FOR PIPE BEDDING FOR RIGID PIPES, PROVIDED THE NATIVE GRANULAR MATERIAL HAS A MAXIMUM DIMENSION OF 1-1/2 INCHES. DEPTH OF MATERIAL SURROUNDING PIPE SHALL BE ADEQUATE TO SUPPORT THE PIPE AND TRENCH.
- 6) NEAT, UNIFORM AND VERTICAL CUT (TYPICAL BOTH SIDES). CLEAN AND HEAT EDGES AND TACK WITH EMULSIFIED ASPHALT. SEAL JOINT WITH HOT ASPHALT CEMENT.
- 7) NEAT, UNIFORM AND VERTICAL CUT (TYPICAL BOTH SIDES). DRILL AND GROUT EPOXY-COATED TIE BARS WITH EPOXY RESIN INTO THE EXISTING PAVEMENT (TYPICAL BOTH SIDES).
- 8) MINIMUM RESTORATION LIMITS FOR HMA UNLESS OTHERWISE DETERMINED BY THE ENGINEER. IF ANY PORTION OF A LONGITUDINAL PAVEMENT CUT AFFECTS A WHEEL TRACK AS DETERMINED BY THE ENGINEER, THE ENTIRE LANE SHALL BE REMOVED AND REPLACED. WHEREVER AN EXISTING PATCH OR CRACK IS IN CLOSE PROXIMITY TO THE NEW CUT, THE ENGINEER MAY REQUIRE REMOVAL OF THE EXISTING PATCH OR CRACK AND ANY INTERVENING PAVEMENT. DEPTH OF REPLACEMENT ASPHALT SHALL BE IN ACCORDANCE WITH NOTE 1.
- 9) MINIMUM RESTORATION LIMITS FOR PCC UNLESS OTHERWISE DETERMINED BY THE ENGINEER. REMOVE ENTIRE PANEL UNLESS WIDTH OF REMAINING PANEL PORTION IS GREATER THAN 50% OF THE EXISTING PANEL WIDTH. IF ANY PORTION OF A LONGITUDINAL PAVEMENT CUT AFFECTS A WHEEL TRACK AS DETERMINED BY THE ENGINEER, THE ENTIRE LANE SHALL BE REMOVED AND REPLACED. WHEREVER AN EXISTING PATCH OR CRACK IS IN CLOSE PROXIMITY TO THE NEW CUT, THE ENGINEER MAY REQUIRE REMOVAL OF THE EXISTING PATCH OR CRACK AND ANY INTERVENING PAVEMENT. IF THE ENTIRE PANEL IS NOT REMOVED, FOLLOW ASPHALT CONCRETE UTILITY PATCH PROCEDURES WITH AN ASPHALT CONCRETE PAVING DEPTH EQUAL TO THE DEPTH OF THE EXISTING PAVEMENT.
- 10) ALL PERMANENT FINAL PATCHES SHALL BE RECTANGULAR OR CIRCULAR IN SHAPE AND CONSTRUCTED TO BE PARALLEL AND PERPENDICULAR TO THE ROAD CENTERLINE.
- 11) CONTROLLED DENSITY FILL (CDF) SHALL BE REQUIRED ON ROADWAYS WHERE DIFFICULT SUBSURFACE CONDITIONS ARE ANTICIPATED AND SHALL BE PLACED IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS 2-09.3(1)JE.

(SEE STANDARD DRAWING PC.A7.1 FOR DETAIL DRAWINGS)

UTILITY PATCH
SHEET 2 OF 2

PC.A7.2

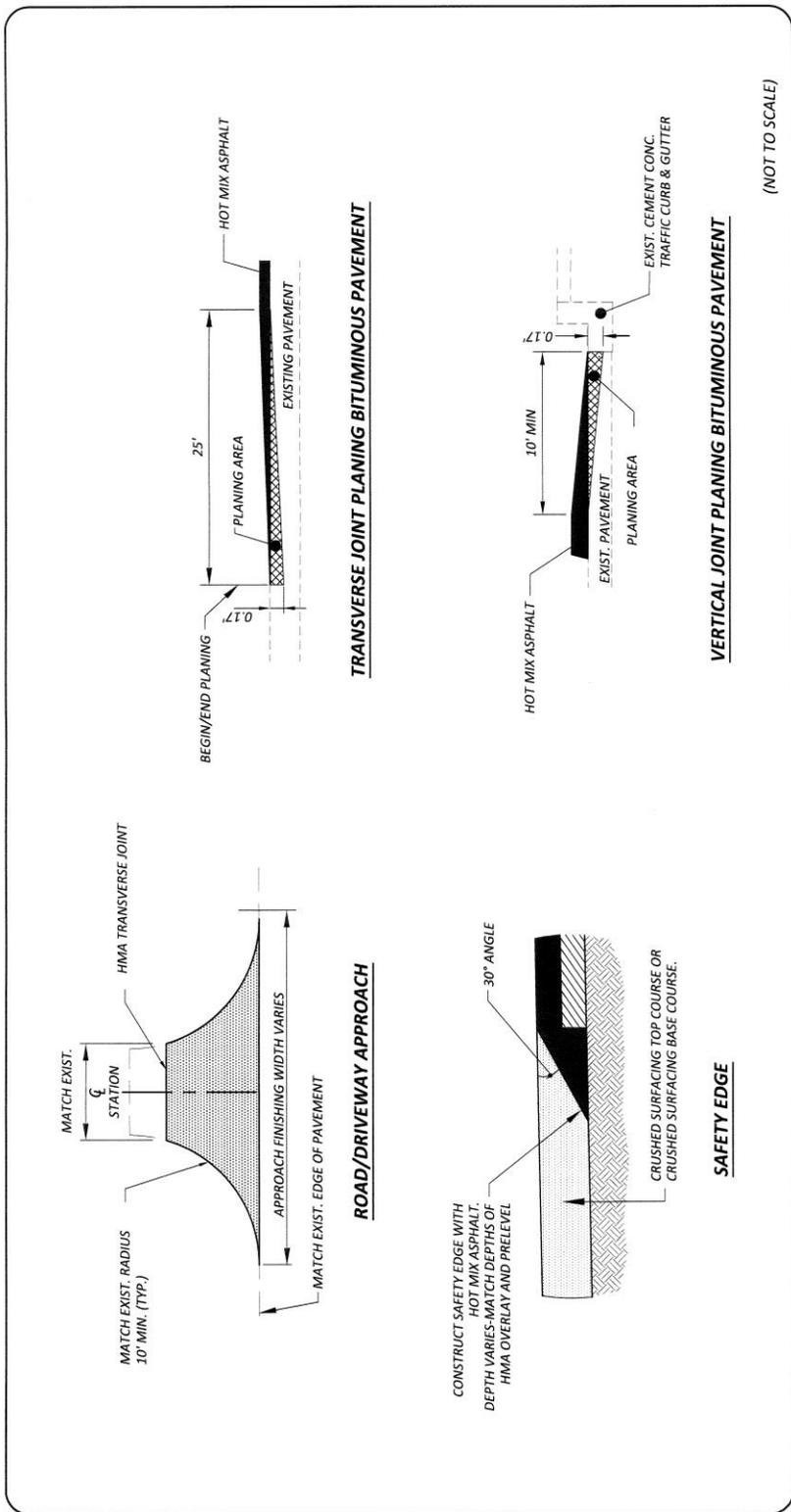
BRIAN D. STACY, P.E.
COUNTY ENGINEER

Office of the County Engineer



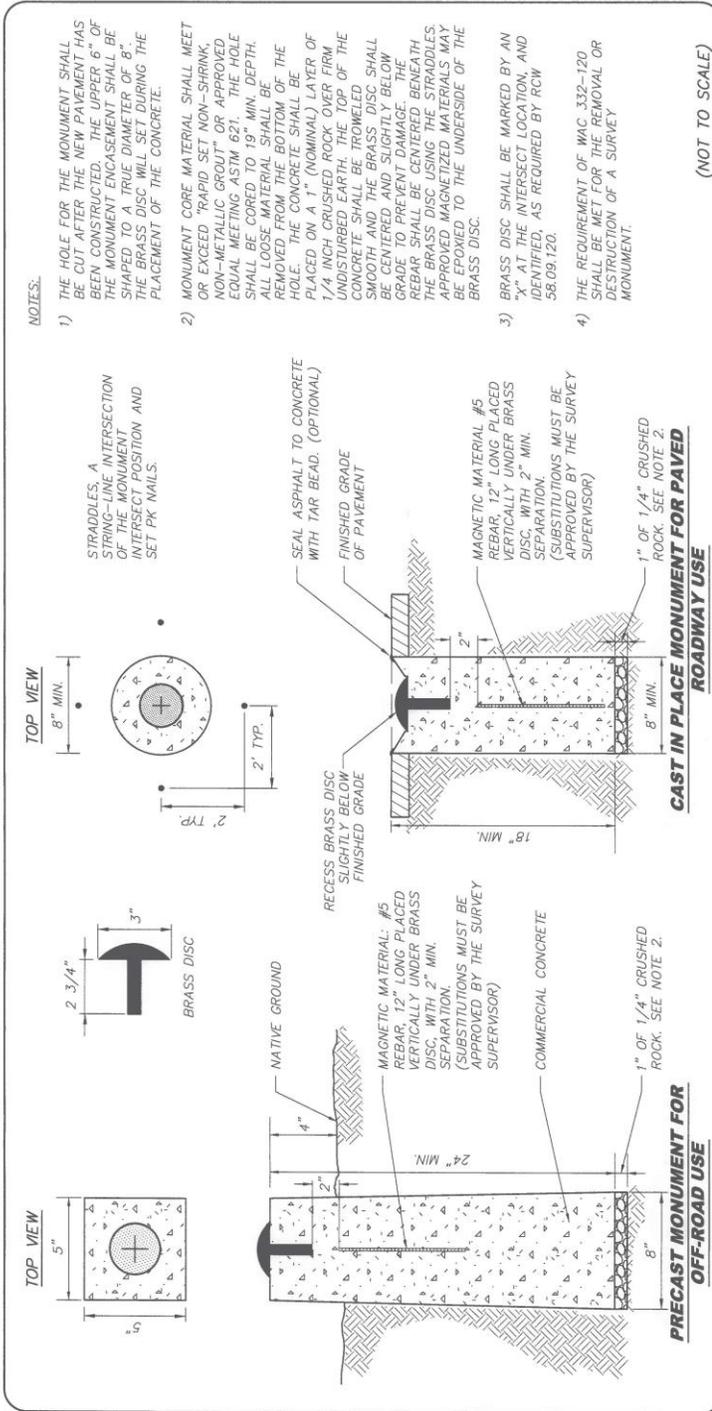
Pierce County
Public Works and Utilities
Office of the County Engineer
Tacoma Mall Office Building
4301 South Pine Street, Suite 628
Tacoma, Washington 98409
An APIWA Accredited Agency

PC.F8.6 PLANING/OVERLAY DETAILS



 <p>Pierce County Public Works and Utilities Office of the County Engineer Tacoma Mall Office Building 4301 South Pine Street, Suite 446 Tacoma, Washington 98409-7207 An APWA Accredited Agency</p>	 <p>BRIAN D. STACY, P.E. COUNTY ENGINEER Office of the County Engineer</p>	<p>PLANING / OVERLAY DETAILS</p> <p>PC.F8.6</p>
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PC.H1 PIERCE COUNTY STANDARD MONUMENTS



- NOTES:**
- 1) THE HOLE FOR THE MONUMENT SHALL BE CUT AFTER THE NEW PAVEMENT HAS BEEN CONSTRUCTED. THE UPPER 6" OF THE MONUMENT ENCASMENT SHALL BE SHAPED TO A TRUE DIAMETER OF 8". THE BRASS DISC WILL SET DURING THE PLACEMENT OF THE CONCRETE.
 - 2) MONUMENT CORE MATERIAL SHALL MEET OR EXCEED "RAPID SET NON-SHRINK, NON-METALLIC GROUT" OR APPROVED EQUAL MEETING ASTM 621. THE HOLE SHALL BE CORED TO 19" MIN. DEPTH. ALL LOOSE MATERIAL SHALL BE REMOVED FROM THE BOTTOM OF THE HOLE. THE CONCRETE SHALL BE PLACED ON A 1" (NOMINAL) LAYER OF 1/4" INCH CRUSHED ROCK OVER FIRM UNDISTURBED EARTH. THE TOP OF THE CONCRETE SHALL BE TROWELED SMOOTH AND THE BRASS DISC SHALL BE CENTERED AND SLIGHTLY BELOW GRADE TO PREVENT DAMAGE. THE REBAR SHALL BE CENTERED BENEATH THE BRASS DISC. APPROVED MAGNETIZED MATERIALS MAY BE EPOXIED TO THE UNDERSIDE OF THE BRASS DISC.
 - 3) BRASS DISC SHALL BE MARKED BY AN "X" AT THE INTERSECT LOCATION, AND IDENTIFIED, AS REQUIRED BY RCW 58.09.120.
 - 4) THE REQUIREMENT OF WAC 332-120 SHALL BE MET FOR THE REMOVAL OR DESTRUCTION OF A SURVEY MONUMENT.

(NOT TO SCALE)

**PIERCE COUNTY
STANDARD
MONUMENTS**

PC.H1

BRIAN D. STACY, P.E.
COUNTY ENGINEER

Office of the County Engineer
3-20-12

Pierce County
Public Works and Utilities
Office of the County Engineer
Tacoma Mall Office Building
4301 South Pine Street, Suite 446
Tacoma, Washington 98409-7207
An APWA Accredited Agency

Appendix D

BRIDGE UTILITY INSTALLATION GUIDELINES

D-1 General

The following general guidelines are intended as a design aid for installing natural gas, volatile fluid, water, telephone, power, sewer and other utility lines on County-owned bridges. Utilities will comply with applicable federal, state and local codes, rules and regulations, including Buy America provisions when required. Although some utility installations are unique, the general concepts and procedures shown in these guidelines can be applied to most utility installations.

D-2 Permit Requirements

To install any utilities on a Pierce County bridge, a Utility Right-of-Way Permit must be obtained from the Department (see Chapter 3). Plans for installation must be completed and submitted to the Department for review prior to any permit approval. Beside the items listed in Subsection 3-2.2, the plans must include at least the following:

1. Plan view with Pierce County Bridge Number.
2. Elevation view.
3. Typical section views.
4. Specifications, including maximum design pressures and regular operating pressure for pressure pipe system.
5. Methods of attachment, including thrust protection details and lateral bracing details for pressure systems, utility weights and span lengths between supports.
6. Utility expansion provisions.

Bridge Engineering will review details pertaining to the bridge crossing, such as attachment details or trenching details adjacent to bridge piers or abutments. The Engineer will review the remaining details and provide overall review. If, in the opinion of the Engineer, the proposed utility could cause structural overloading of the bridge, the proposed utility installation will not be allowed.

The applicant shall allow 30 days for plan review. Five copies of the plans shall be submitted with the permit application.

D-3 General Concepts

On new construction, the utility installation shall be located to minimize the effect on the appearance of the structure. In most cases, this will mean installing the utility between girders or in curbs, traffic barriers, or sidewalks. Utilities and supports shall not normally extend below the bottom of the superstructure. When the utility is located between girders, it shall be installed no lower than 1 foot 0-inches above the bottom of the girders. In some cases when appurtenances are required such as air release valves, care should be taken to provide adequate space.

When the bridge is to receive pigmented sealer, consideration shall be given to painting any exposed utility lines and hangers to match the bridge. When pigmented sealer is not required, steel utility lines and hangers shall be painted or galvanized for corrosion protection. The special provisions shall specify cleaning and painting procedures.

On existing structures, proposed utility attachments are normally reviewed by Bridge Engineering and either approved or returned for correction.

D-4 Design Criteria for Utility Installations

1. All pipelines carrying volatile fluids shall be encased throughout the length of the structure except as noted in Section D-5. A sleeve approximately three inches larger than the outside diameter of the carrying pipe shall be used. The space between the carrying pipe and the encasing sleeve shall be effectively vented beyond the structure at each end and at high points.
2. Utilities shall not be attached above the bridge deck nor attached to the railings or rail posts. They may be placed in the concrete traffic barrier no higher than 16 inches above the top of the deck.
3. Utilities shall not extend below the bottom of the superstructure.
4. Utilities shall include suitable expansion devices at bridge expansion joints or include other expansion methods, as required, to prevent longitudinal temperature forces from being transferred to bridge members. For telephone and power conduit, longitudinal restraint may be considered to be the cable itself. For other conduit, longitudinal restraint may be considered to be the bridge end fill. For long runs of water pipe, expansion joints in the pipe shall be properly spaced with longitudinal load-carrying supports.
5. Rigid conduit shall extend for a minimum of 10 feet beyond the ends of the structure to reduce the effects of embankment settlements on the utility and to provide protection in case of future work involving excavation near the structure. This requirement shall be stated on the plans. Utilities that are off of the bridge shall be installed prior to paving of approaches.
6. Utility supports shall be designed so that none of the conduits, supports, bridge structures or bridge members is over stressed by any loads imposed by the utility installation. It is especially important to provide longitudinal and transverse support for Grinnell style inserts and other similar inserts which cannot resist moment.
7. Utility locations and supports shall be designed so that a failure will not result in damage to the bridge, the surrounding area, or be a hazard to traffic.
8. All conduits shall be steel pipe or rigid PVC pipe.
9. Lag screws may be used for attaching brackets to wooden structures. All bolt holes shall meet the requirements of Sections 6.04.3(4) and 6.04.3(5) of the Washington State Department of Transportation, *Standard Specifications for Road, Bridge, and Municipal Construction*, current edition.
10. Welding across main structure members will not be permitted. All welding must be approved.
11. Utilities shall be located to minimize bridge maintenance and bridge inspection problems.
12. Attach conduits or brackets to the concrete superstructure with resin bond anchors. Lag screws shall not be used for attachment to concrete.
13. Drilling through reinforcing steel will not be permitted. If steel is hit when drilling, the anchorage location must be moved and the abandoned hole filled with non-shrink grout conforming to the requirements of Section 6-02.3(20) of the Washington State Department of Transportation, *Standard Specifications for Road, Bridge, and Municipal Construction*, current edition.
14. There shall be a minimum of three inches distance from the edge of the concrete to the center line of bolt holes in concrete.
15. All utilities and utility supports shall be designed not only to support their dead load but to resist other forces from the utility (surge, etc.) and wind and earthquake forces. The utility company may be asked to submit one set of calculations to verify their design forces.

16. Drilling into pre-stressed concrete members for utility attachments will not be allowed.
17. Water or sewer lines to be placed lower than adjacent bridge footings shall be encased if failure can cause undermining of the footing.
18. Utilities installed in the cells of box girder bridges should be embedded in concrete where structurally and economically feasible. Where utilities, other than telephone and power conduit, are not embedded in concrete, access shall be provided in each cell. Such access can be from manholes in the shoulder of the roadway or in the sidewalk. Access to box girder cells may be provided by a hatch in the bottom of the box girder at the end piers.
19. Telephone and power conduit may be installed in the cells of box girder bridges without provision for embedment or access provided that conduit is galvanized steel pipe, or Schedule 80 PVC rigid or heavier.
20. All materials and workmanship for attachment to the structure shall be in accordance with the requirements of the Washington State Department of Transportation, *Standard Specifications for Road, Bridge, and Municipal Construction*, current edition.
21. All steel in utility supports, including fastenings and anchorages, shall be galvanized in accordance with AASHTO M-111 or M-232 (ASTM A-123 or A-153, respectively).
22. All utilities and utility support surfaces, including galvanized utilities, which are installed on a painted bridge structure and are visible to the public, shall be painted to match the bridge structure.
23. Any painted surfaces damaged during construction shall be cleaned and painted as noted above.
25. Any paint splatters shall be removed from the bridge.
25. Appearance of the utility installation shall be given serious consideration in all cases. Where possible, the utility installation shall be hidden from public view.
26. Utility installations and relocations shall comply with Buy America provisions when applicable.

D-5 Special Considerations for Various Utilities

D-5.1 Subsurface Installations Near Structures

Bridge Engineering must pre-approve all excavations and borings that meet the follow:

1. Below a footing, seal, or pile group.
2. Within a horizontal distance equal to twice the footing width from any edge of a footing.
3. Below a 45-degree envelope from the bottom of any edge of a footing. The following figures illustrate these limits. See Figures 120-6, Zone of Influence, and Figure 120-7, Subsurface Bridge Submittal Example, from *WSDOT Utilities Manual*, M 22-87.07, Pages 1-59 and 60. (See Section D-8 for a copy of the figures.)
4. A plan and elevation profile of the proposed utility location with references identifying adjacent bridge piers or retaining walls by Pierce County bridge number.
5. Information regarding the proposed method of installation.
6. A location cross section showing the horizontal and vertical relationship between the proposed installation and any adjacent bridge pier footings, wall footings, or existing utilities.
7. Any Datum equations used to compare utility elevations to bridge as-built elevations.

Pressurized utilities installed within the Zone of Influence must be encased to minimize undermining of the substructure in the event of damage or rupture to the carrier pipe. See 120.15, “Casing, Conduit, Innerduct, and Encasement,” of the *WSDOT Utilities Manual*, M 22-87.07, for additional guidance.)

D-5.2 Aerial Installations Near Structures

For bridge maintenance and inspection purposes, aerial utility installations shall not be installed within 30 feet of any structural element. Aerial utilities proposing to be installed within 30 feet of any structure should be submitted for review and approval by Bridge Engineering.

D-5.3 Gas Lines or Volatile Fluids

Pipelines carrying volatile fluids through a bridge superstructure shall be designed by the utility company in accordance with WAC 480-93, “Gas Companies--Safety, and Minimum Federal Safety Standard,” Title 49, Code of Federal Regulations (CFR) Section, Part 192. WAC 468-34-210, “Pipelines—Encasement,” describes when casing is required for carrying volatile fluids across structures. Generally, casing is not required for pipelines conveying natural gas per the requirements of WAC 468-34-210. If casing is required, then WAC 468-34-210 and WAC 468-93-115 shall be followed.

Access and ventilation shall always be provided in box girder cells containing gas lines.

D-5.4 Water Lines

Water lines shall be galvanized steel or ductile iron pipe. Where freezing may be encountered, consideration should be given to the use of insulation on the pipe. Insulation shall be jacketed and saddles shall be galvanized to avoid electrolysis.

Care shall be taken that all inertia loads due to dynamic action (e.g., water hammer) can be properly carried. Transverse supports shall be provided for all water lines. Additional temporary bracing shall be provided during pressure testing. The design loading of the temporary bracing shall be shown on the plans. Pressure test loading force magnitude shall be obtained from the utility company.

Fire control piping is a special case where unusual care must be taken to handle the inertial loads and associated deflections.

In box girders, the utility shall ensure that a failure of the water line would not flood the cell with an excess amount of water which may cause consequential structural failure of the girder. Additional weep holes or open grating shall be used if necessary (see Figure 10.8.3-1, “Concrete Utility Supports,” *WSDOT Bridge Design Manual*, M 23-50.14, Page 10.8-6 (see Section D-8 for a copy of the figure)).

D-5.5 Sewer Lines

Normally, an appropriate encasement pipe is required for sewer lines on bridges. Sewer lines must meet the same design criteria as waterlines.

D-5.6 Telephone and Power Conduit

Generally, telephone, television cable, and power conduit shall be galvanized steel pipe or a PVC pipe of a UL approved type and shall be Schedule 40 or heavier. Where such conduit is buried in concrete curbs or barriers or has continuous support, such support is considered to be adequate. Where conduit is supported by hangers or brackets at intervals, the distance between supports shall be small enough to avoid excessive sag between supports (see PVC pipe in D-6 below). Generally, the conduit shall be designed to support the cable in bending without exceeding working stresses for the conduit material. Also, only galvanized steel conduits will be allowed in barriers when slip forming is employed. Stub outs for galvanized steel pipe shall be protected against corrosion as stated in the following subparagraph.

D-5.7 Rigid Electrical Conduit

In the case of all new bridge construction where roadway shoulders have not yet been paved and where usable shoulder width is four feet or greater in width, electrical conduit shall be stubbed-out and capped 1 foot 6 inches below grade and 3 feet 0 inches horizontally toward roadway centerline from the face of the traffic barrier. Longitudinally, this stub-out location should be near the back of pavement seat. The conduit in this location should clear any foreseeable obstructions. The location of the stubbed-out conduit at bridge ends shall be clearly shown on the plans. The galvanized steel conduit stub out shall be wrapped with corrosion resistant tape at least 1 foot inside and outside of the concrete structure, and this requirement shall be so stated on the plans. The usual location of the conduit throughout the remainder of the bridge should be in the traffic barrier.

The number and size of conduits within the traffic barrier shall be minimized to assure proper concrete consolidation. A maximum of one (1) 4-inch conduit or two (2) 2-inch conduits will be allowed.

Pull boxes shall be provided at a maximum spacing of 200 feet. Their size shall conform to the specifications of the National Electric Code or be a minimum of 6 inches by 6 inches by 18 inches to facilitate pulling of wires. Galvanized steel pull boxes (or junction boxes) shall meet the specifications of the "NEMA Type 4X" standard and shall be so stated on the plans. Stainless steel pull boxes shall be allowed as an option to the galvanized steel.

In the case of existing bridges, an area two feet in width shall be reserved for conduit beginning at a point either 4 feet or 6 feet outside the face of usable shoulder. The fastening for and location of attaching the conduit to the existing bridge should be worked out on a job-by-job basis.

D-6 Conduits

D-6.1 PVC Pipe

PVC pipe may be used with suitable considerations for deflection, the location and placement of expansion fittings, and of freezing water within the conduits. Where conduit is to be exposed in the cells of box girder bridges, PVC should be avoided because of the possibility of damage occurring when the top slab falsework collapses. If such falsework is specified on the plans to be removed after construction, this provision does not apply.

PVC pipe should not be placed in concrete traffic barriers due to damage and pipe separation that often occurs during concrete placement and from temperature variations.

Where conduit is to be supported by hangers or pedestals at intervals, the distance between supports shall be small enough to avoid excessive sag of the conduit.

D-6.2 High Density Polyethylene or Fiberglass Pipe

Support as for PVC unless data is shown to justify another type of support. Do not place in traffic barriers.

D-6.3 Steel Pipe

All steel pipe conduits shall be schedule 40 or greater. All steel pipe conduits and fittings shall be galvanized except for special uses.

D-7 Supports

D-7.1 General

The following types of supports can be used on County bridges. Selection of a particular support should be based on the needs of the installation and the best economy. For typical utility support installations and placement at abutments and diaphragms see WSDOT's Bridge Office website http://www.wsdot.wa.gov/eesc/bridge/drawings/index.cfm?fuseaction=drawings§ion_nbr=8&type_id=27 for the following details 10.8-A1-1, "Utility Hanger Details for Prestressed Girders" and 10.8-A1-2, Utility Hanger Details for Concrete Box Structures. For additional information regarding utility installations on existing bridges, see Figure 120-5, "Utility Installation Guideline Details for Existing Bridges: Utility Hanger Details," *WSDOT Manual*, M 22-87.07, Page 1-57. (See Section D-8 for a copy of the figures.)

D-7.2 Concrete Embedment

This is the best structural support condition and offers maximum protection to the utility. Its cost may be high for larger conduit and the conduit cannot be replaced. Special care must be taken to handle expansion joints.

D-7.3 Continuous Support

This support condition may be achieved by providing a ledge of concrete to support the conduit. In addition, some type of clamping will be required. The support condition here is very good, but the cost may be very high.

D-7.4 Concrete Pedestals

This consists of concrete supports formed at suitable intervals and provided with some type of clamping device.

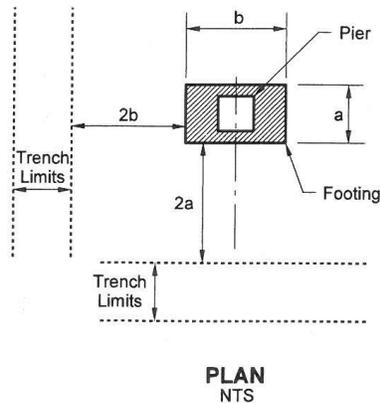
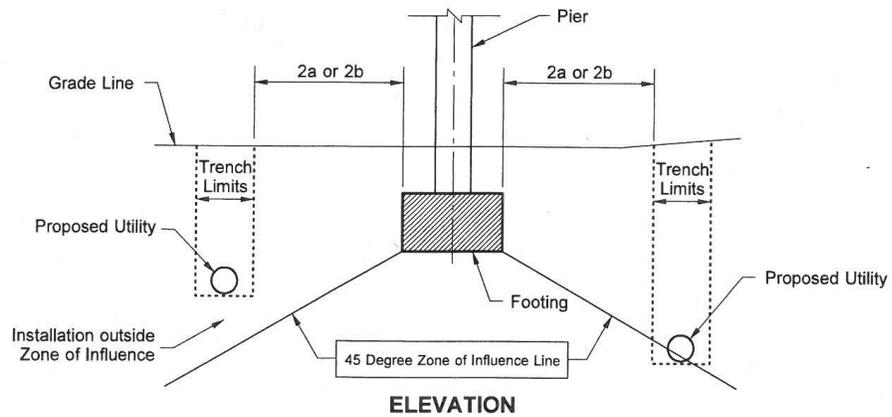
D-7.5 Pipe Hangers

This is the most usual type of support for utilities to be supported under the bridge deck. It allows the use of standard ordered parts (usually "Grinnell") and is very flexible in terms of expansion requirements. It will not normally provide longitudinal support, and if required by the Engineer, transverse support must be provided by a second hanger extending from a girder, by placing bracing against the girder, or other means approved by the Engineer.

D-8 Reference Copies of Figures and Tables

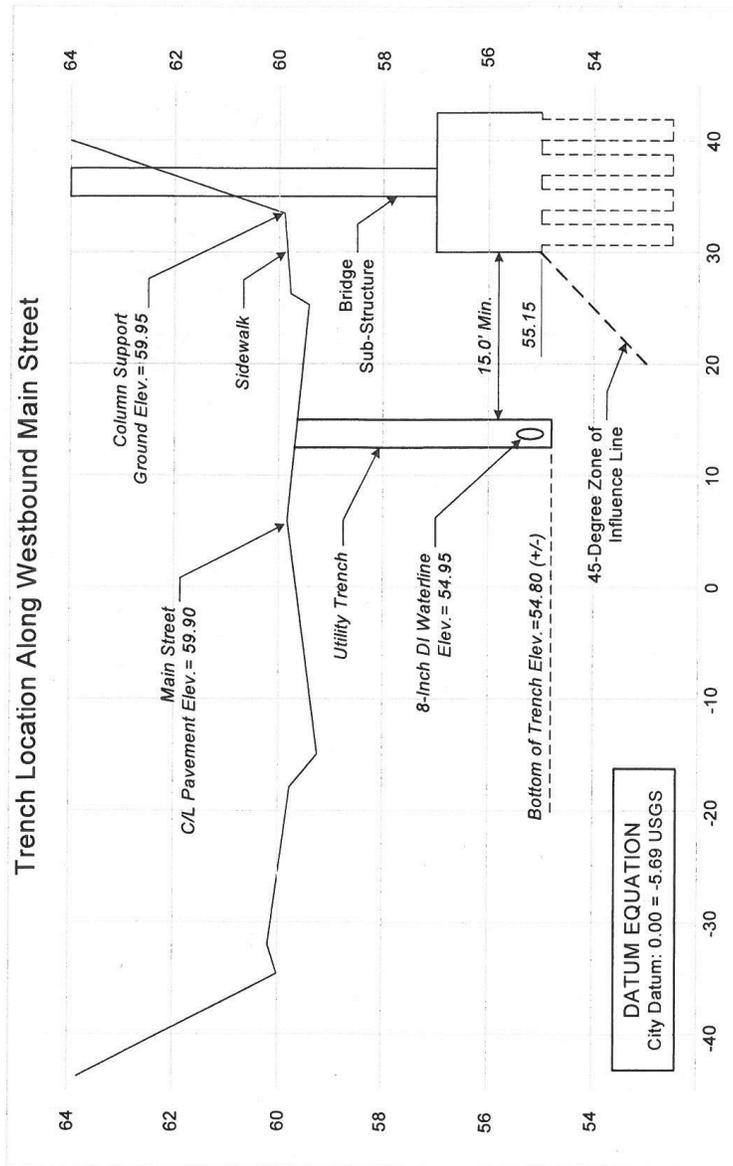
The following copies of the required figures and tables are for reference only. It is up to the Contractor to make sure that all details and tables are current according to the provided citations.

ZONE OF INFLUENCE



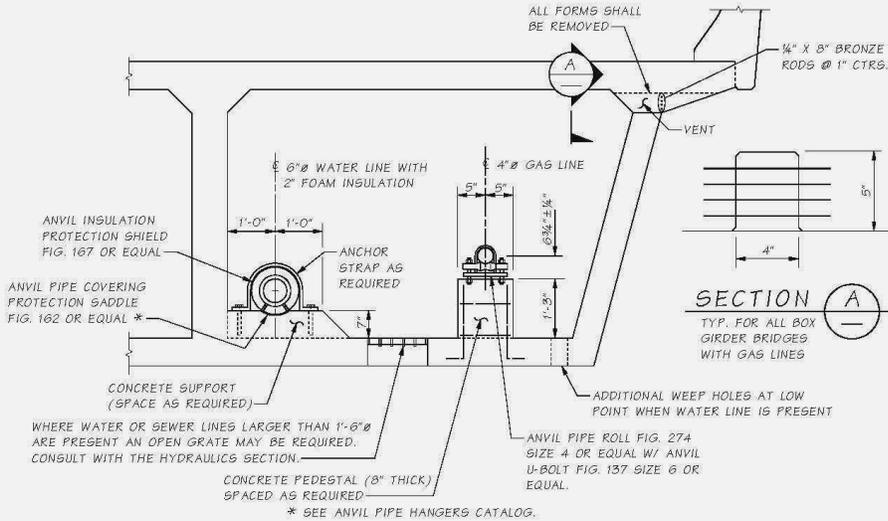
Zone of Influence
Figure 120-6

SUBSURFACE BRIDGE SUBMITTAL EXAMPLE



Subsurface Bridge Submittal Example
Figure 120-7

CONCRETE UTILITY SUPPORTS

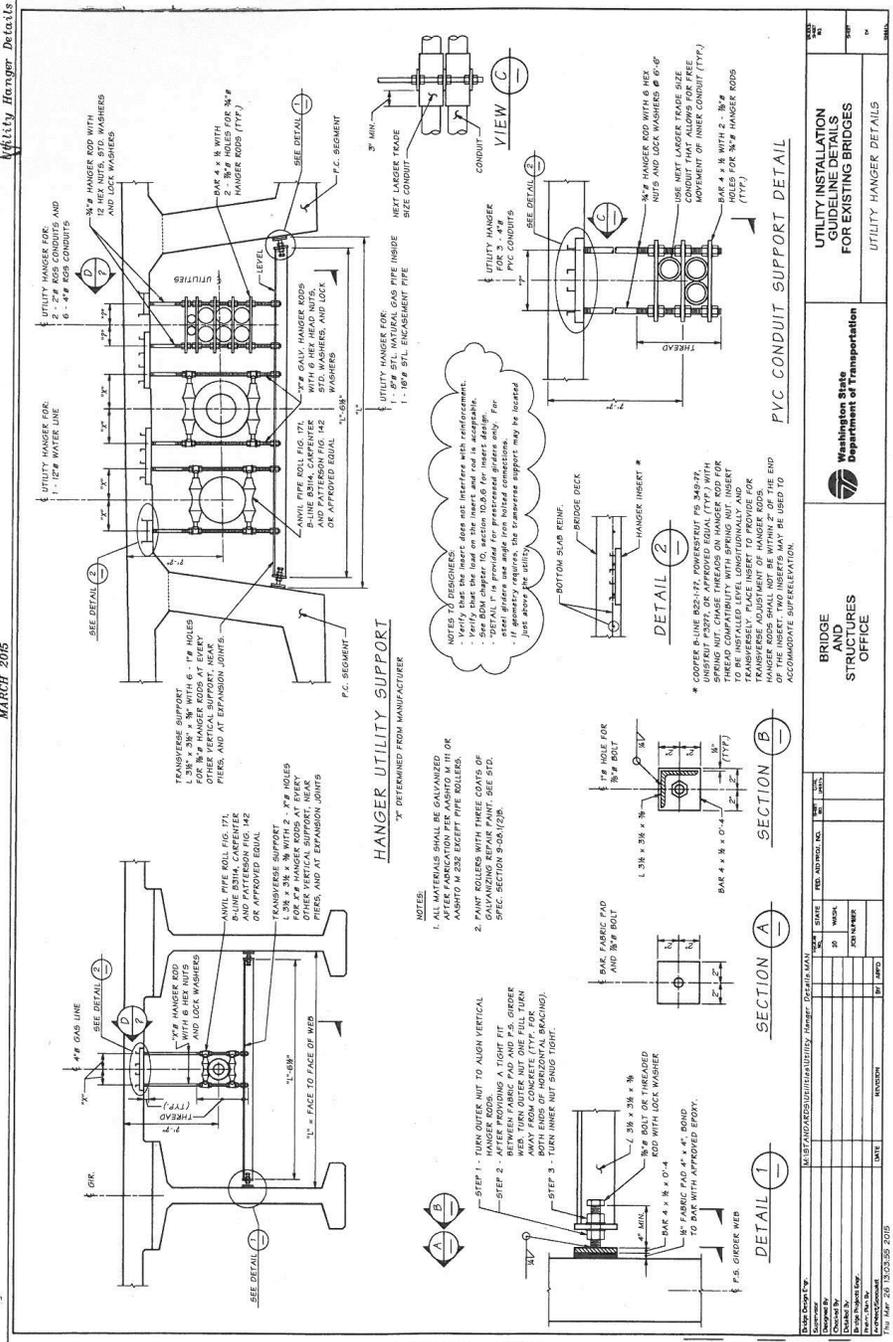


UTILITY HANGER DETAILS FOR PRESTRESSED GIRDERS

BRIDGE DESIGN MANUAL

MARCH 2015

Utility Hanger Details



Last revised on : 9/4/2014

SHEET 1

10.8-A1-1

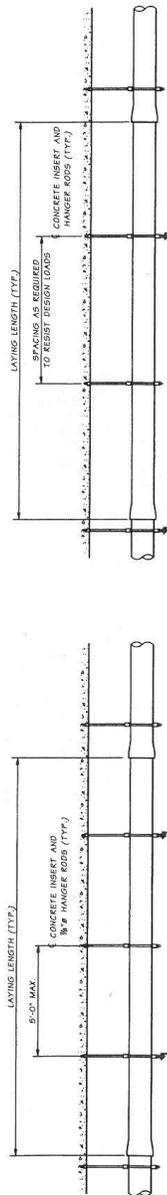
UTILITY HANGER DETAILS FOR CONCRETE BOX STRUCTURES

Appendix U
Chapter 10

BRIDGE DESIGN MANUAL

MARCH 2015

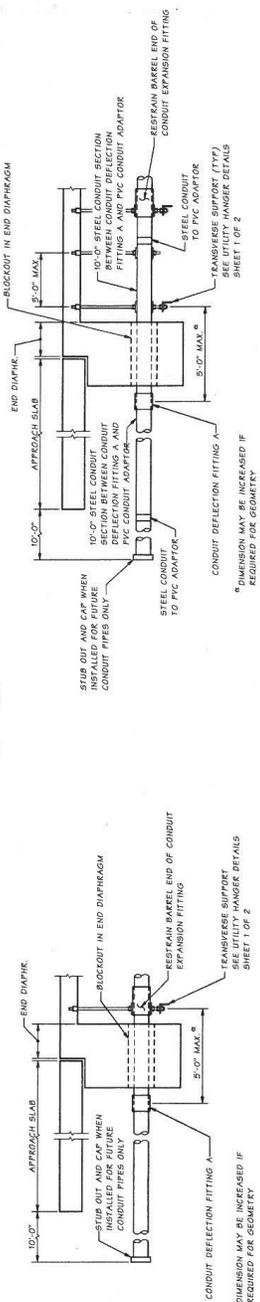
Utility Hanger Details



SECTION D
RGS OR PVC CONDUIT

SECTION D
RGS OR PVC CONDUIT

NOTE TO DESIGNER:
COORDINATE WITH UTILITY ENGINEER FOR CONDUIT PLACEMENT DETAILS
AT ADJUSTMENTS FOR UTILITIES OTHER THAN RGS OR PVC.



UTILITY CONDUIT
PLACEMENT DETAIL ~ RGS

UTILITY CONDUIT
PLACEMENT DETAIL ~ PVC

- NOTES:
1. SET POSITION OF EXPANSION FITTING BASED ON MANUFACTURER'S RECOMMENDATIONS AND TEMPERATURE AT TIME OF INSTALLATION.
 2. EXPANSION FITTINGS SHALL BE INSTALLED EVERY 100'-0" MAX. AND SHALL ACCOMMODATE 0.5" INCHES OF MOVEMENT. THE DESIGN TEMPERATURE RANGE IS 125 DEGREES (-10' TO 110').
 3. SEE BARRIER SHEETS FOR CONDUIT DEFLECTION FITTING A DETAIL.

Last revised on : 12/24/2013

SHEET 1
JOB NO. 10.8-A1-2

Checked By:	DATE:	DESIGNED BY:	DATE:	PROJECT NO.:	DATE:	PROJECT NAME:	DATE:	PROJECT LOCATION:	DATE:	PROJECT STATUS:	DATE:	PROJECT DESCRIPTION:	DATE:

BRIDGE AND STRUCTURES OFFICE



UTILITY INSTALLATION GUIDELINE DETAILS FOR EXISTING BRIDGES

UTILITY HANGER DETAILS

Appendix E
MONUMENT PRESERVATION DOCUMENTATION AND
CERTIFICATION

I, _____ representing _____
(Licensed Surveyor) (Contractor)

pursuant to WAC Chapter 332-120 Survey Monuments-Removal or Destruction, certify that I have reviewed the construction plans for _____ and have complied with the following:
(Project Name / Pierce County Permit No.)

- Defined the areas where the proposed construction activity may disturb or destroy survey monuments.
- Made a diligent search of survey records in Pierce County to determine possible locations and type of existing monuments.
- Made a diligent field search within the defined construction limits at locations determined from the survey records research.
- Made an additional diligent field search for unrecorded monuments at locations not defined from survey records but in locations where survey monuments typically exist.
- Supplied the Pierce County Survey with a map outlining the project boundary search area with the individual search areas being further defined indicating the type of monument found and/or the locations at which a monument was searched for and not found. (Map attached)
- Each found monument has been referenced to a minimum of 3 nearby points not likely to be destroyed with this construction. (Copies of references attached)
- Permits have been obtained from the Department of Natural Resources according to WAC Chapter 332-120. (Copies of permits attached)

This certification is for the expressed purpose of recovering, restoring, preserving and/or the perpetuation of the existing location and type of survey monument within the construction area. It is not for the purpose of verifying that the monuments mark the location of previously surveyed positions.

Signed, Dated and Sealed,

Name Date

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