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700.01 General

Use this chapter as a guide for the inspection of utility work within the Washington State Department of Transportation (WSDOT) operating highway right of way. Utility work may consist of installing new facilities or adjusting, modifying, removing, or relocating existing utility facilities. Utility work may be necessary because of a state highway project or at the request of the utility as part of a franchise or permit.

The most common scenarios that may occur during the inspection of utility work are discussed in this chapter. Additional investigation may be necessary regarding various requirements, resources, and guidelines for specific issues that may arise during inspection, including the following:

- WSDOT *Utilities Accommodation Policy*
- Specific contract plans
- Washington Administrative Code (WAC) 468-34-250
- Current *Standard Specifications for Road, Bridge, and Municipal Construction (Standard Specifications)*, M 41-10
- *Standard Plans for Road, Bridge, and Municipal Construction (Standard Plans)*, M 21-01
- *Work Zone Traffic Control Guidelines*, M 54-44
- *Manual on Uniform Traffic Control Devices (MUTCD)*
- Other resources as required

Utility inspections are conducted to:

- Ensure utility worker safety.
- Ensure the safety of the traveling public.
- Protect transportation infrastructure such as roadways, structures, or other facilities.
- Avoid conflicts with maintenance and highway construction activities.
- Ensure utilities are installed as approved by the appropriate authority.

Utility inspectors are an important part of the Region Utilities Office and should be involved in all phases of the utility accommodation approval process. Their role often begins in the initial review phase of a utility application by assisting Utilities Office staff with the review of a proposed utility installation. Inspectors should remain involved through application approval, taking charge of the oversight of utility construction when installation begins. Once construction is complete, inspectors are to ensure proper highway and roadside restoration.

Among other duties, one of the primary responsibilities of utility inspectors is to ensure utilities are installed at the preapproved location and at the depth/height shown on the document authorizing the installation. However, inspectors are not approval authorities. Inspectors should discuss changes to preapproved utility installations with the delegated approval authority before allowing any deviations from preapproved plans, specifications, and exhibits of the permit or franchise or the Utility Relocation Plan. The inspector is to be given copies of the appropriate documents/plans in a timely manner to ensure adequate time for review prior to the start of construction.

Note that the term “utility” as used in this chapter refers to any organization performing utility work, such as a utility company, local agency, or third party contractor. Where the *Standard Specifications* uses the term “Contractor,” inspectors should interpret that to mean “utility.”

700.02 Jurisdiction and Authority

WSDOT has a responsibility to ensure utilities are installed in the manner approved and to ensure construction activities minimize or eliminate damage to highway infrastructure within the operating highway right of way. The department must also ensure utilities and their contractors are undertaking such work in the safest manner possible. [RCW 47.44](#) and [WAC 468-34-100](#) provide WSDOT authority to take reasonable and appropriate action to ensure these requirements and responsibilities are met.

(1) General Highway Right of Way Oversight

As a WSDOT employee, it is the utility inspector’s responsibility to look out for the best interests of the department. Similar to highway maintenance forces, utility inspectors may travel many miles of highway each day. While traveling, inspectors should be alert to any right of way encroachments, breaks in access, or other activities that may be occurring within the right of way, regardless of whether or not they are utility-related. If the activity appears to be utility-related, the utility is required to have a copy of an approved utility permit or franchise and environmental documentation on-site. Inspectors have a responsibility to stop and ask the responsible person to provide a copy of the approved permit or franchise document that authorizes them to perform work within the right of way. Approved traffic control must be in place for any operation within the right of way. If the activity is not utility-related, the inspector should contact the appropriate Area Maintenance or Construction Office to ensure the work is authorized.

(2) Utilities Under Permit or Franchise

Where a utility is performing work as part of a utility permit or franchise, the utility is required to follow the provisions contained in the permit or franchise. An executed permit or franchise, signed by the utility and WSDOT, is a legal and binding agreement. General Provision #1 of the [Utility Accommodation Application](#) (see [Appendix B](#)) states:

This document is subject to RCW 47.32, RCW 47.44, and WAC 468-34, and amendments thereto.

These state laws give WSDOT authority over, and provide requirements for, utility work within state right of way. General Provisions and Special Provisions provide additional requirements.

Utility installations authorized by permit or franchise have no compensable real property interest. Reimbursement to WSDOT is required for reasonable costs incurred by the department for work associated with the inspection of utility installations.

(3) Utilities With Compensable Real Property Interest

Unlike utility installations authorized by permit or franchise, WSDOT does not possess the same jurisdiction and authority when a utility owner possesses a compensable real property interest. This condition generally occurs when relocation of a utility is necessary to accommodate a highway improvement project. The utility is either located within the operating highway right of way by easement or the department must acquire additional right of way for a highway improvement. The utility either owns the adjacent property fee title or has an easement on the adjacent property. In either case, the utility has a compensable real property interest.

When a utility has a compensable real property interest or a property right, the relocation of existing utility facilities that are in conflict with a highway improvement project is generally done at WSDOT's expense. In this situation, the department enters into a utility agreement with the utility owner for the relocation of the existing utility facility. The utility agreement specifies the terms of the relocation, such as payment for the work and responsibility for the actual relocation work and other details such as inspection and acceptance by WSDOT. Any improvements beyond the necessary relocation are at the expense of the utility owner.

In all cases, the agreement should state that the utility installation must comply with applicable requirements of WSDOT's [Utilities Accommodation Policy](#) and associated WACs and RCWs. Refer to [Chapter 1](#), Utility Accommodation, for additional information on utility accommodation requirements, and [Chapter 2](#), Utility Agreements, for detailed information on utility property rights.

Any utility within the operating highway right of way, whether authorized by permit or franchise, or by virtue of a property right, must obtain preapproval from WSDOT before accessing the operating highway right of way to work on utility facilities.

(4) Utilities on State Highways Within Incorporated Cities/Towns

[RCW 47.24.020](#) defines the jurisdiction and control of city streets where they are part of a state highway.

Where a city street is part of a limited access controlled highway, title to and control over the highway are vested in the state. Therefore, full jurisdiction, responsibility, and control over such facilities are exercised by WSDOT. However, cities also have the right to require that utilities be installed underground. City requirements that exceed those of the department are negotiated between the utility and the local agency. WSDOT cannot be held responsible for any additional costs of undergrounding or other actions that may be required by local agency ordinances.

Where a city street is part of a nonlimited access controlled highway, the city or town exercises full responsibility for and control over any such street beyond that portion used for highway purposes (for example, beyond the curbs). The city has the right to construct and maintain underground utilities within the roadway, as well as grant permits and/or franchises for other organizations to construct and maintain utilities within the roadway, including open cuts of the pavement. However, WSDOT reserves the right to ensure restoration of the roadway meets or exceeds department requirements. Regions should work to insert themselves into local agencies' approval processes when open cuts are proposed for utility installations on state highways within city limits. The inspector is to research the city's open cut policies to be able to enforce the local requirements.

700.03 Traffic Control and Safety

The safety of workers and the traveling public is a primary concern of utility inspectors. To ensure safety issues have been addressed appropriately, utilities are not authorized or allowed access to the operating highway right of way without first obtaining written approval from WSDOT.

(1) Traffic Control Plans

The utility or its contractor must have a copy of a WSDOT-approved Traffic Control Plan (TCP) on-site for each setup it is using and, if required, have a Traffic Control Supervisor (TCS) present. The TCP must fit the on-site conditions for the work taking place.

When issuing a utility permit or franchise, a utilities accommodation best management practice (BMP) is to include a WSDOT-approved TCP, which may consist of:

- A TCP drawing taken from the [Work Zone Traffic Control Guidelines](#).
- A TCP drawing taken from a Region Traffic Office CADD library.
- A TCP submitted by the utility and approved by the Region Traffic Engineer or delegated personnel.

The Region Traffic Engineer or delegated personnel determines whether the utility will be required to have a TCS on-site and notes it on the approved TCP.

Site-specific conditions may require modification of the Traffic Control Plans included in the permit or franchise or possibly the development of a new TCP. In either case the new or modified TCPs must be submitted to the Region Utilities Office for review and approval by the Region Traffic Engineer or delegated personnel prior to use. To accommodate site conditions, minor revisions to approved TCPs may be made by a certified TCS, with the inspector's approval and provided the inspector is also a certified TCS.

To minimize delays, utilities should be encouraged to submit standardized Traffic Control Plans contained within the *Work Zone Traffic Control Guidelines* or Region Traffic Office libraries. When appropriate for conditions, seeking approval for use of standardized plans can save time in the TCP approval process. Many standardized Traffic Control Plans may contain minor items that will need to be changed to fit field conditions.

(2) Construction Equipment and Materials

Construction equipment and materials that can create hazards to the traveling public are to be staged outside the clear zone. Positive protection, such as concrete barrier with proper taper rates and end treatments, should be considered when staging is necessary within the clear zone and where errant vehicles have a potential for impact with equipment or other materials.

During working hours, only the materials and equipment being used may be within the clear zone. All nonessential equipment, materials, and private vehicles (including flaggers' vehicles and the inspector's vehicle if not being used) are to be located outside the clear zone. This may require an off-site staging area with shuttling of personnel materials and equipment from the staging area to the work site. The staging area is not to limit sight distance on the highway or adjacent roadways/approaches.

During nonworking hours or whenever equipment and materials are not protected by appropriate traffic control devices (concrete barrier or guardrail), they are to be located outside the highway clear zone. The clear zone distance is determined by speed limit, slope, and average daily traffic (ADT) for that section of highway and can be obtained using the Design Clear Zone Distance Table and recovery area formulas located in Chapter 700 of the *Design Manual*. The *Design Manual* provides a minimum distance for determining the clear zone. The inspector is to ensure the proper design clear zone distance was selected and may require that the actual clear zone distance used exceeds that taken from the *Design Manual* if field conditions dictate.

Construction equipment or vehicles that are not intended for street use will not be allowed to operate outside designated work zones without proper traffic control and will require a shadow vehicle if traveling between work sites. Large tracked vehicles are to be transported on trailers to prevent damage to the roadway surface, including crossing of roadways.

700.04 Buried Facilities

Underground utilities are generally installed by one of the following methods:

- **Conventional Trenching:** Use of a backhoe or excavator to remove existing material to the proper line and grade (not allowed on existing paved roadways).
- **Plowing:** Use of a bulldozer equipped with a large, hollow tine to simultaneously cut into the earth and place the utility line.
- **Trenchless Technology:** Use of specialized equipment to jack, auger, or drill a tunnel for the installation of a utility line. This method is preferred for all buried crossings of existing roadways.

All buried utilities are to adhere to the construction requirements in [WAC 468-34-250](#) and the *Standard Specifications*. For detailed guidance on buried utilities, refer to [Chapter 1](#), Utility Accommodation.

(1) Location, Depth, and Materials

The horizontal location and depth of a utility line is critical to ensuring the facility will not affect the structural integrity of the roadway or be in conflict with future maintenance and construction activities. Installation must be at the location and depth shown in the approved permit or franchise document, the Utility Construction Agreement, and/or the Utility Relocation Plan approved by the department for the installation.

When the types of materials used for utility installations are the same or similar to those used on WSDOT contracts, the materials must meet the same requirements described in the *Standard Specifications* and/or the Qualified Products List (QPL). If the materials used for a utility installation are not found in the *Standard Specifications* or the QPL, they must meet industry standards and be approved by WSDOT prior to use. Any specific requirements made by the Region Utilities Office are also to be specified in any preapproved documents.

A review of the utility's plans must be done by the inspector well in advance of installation. This review can help head off potential problems with location/depth, materials approval, construction delays, and/or additional costs to the utility. Inspectors are to consult the Region Utilities Engineer if they are unsure whether a utility line should be installed at a particular location and/or depth or whether a specific type of material should be used.

(2) General Pipe Installation Requirements

The general construction requirements for pipe installations are specified in [Chapter 1](#), Utility Accommodation, [WAC 468-34-250](#), and Section 7-08.3 of the *Standard Specifications*.

(3) Compaction

Acceptance of the utility's work is done primarily by visual inspection. However, if an inspector feels an adequate compactive effort is not being applied by the utility, the inspector may require the utility to provide compaction testing to ensure adequate compaction is being achieved. The utility must either apply a compactive effort to the satisfaction of the inspector or provide test results to indicate adequate

compaction is being obtained. However, the method of compaction is not negotiable. The utility or contractor must meet the requirements of [WAC 468-34-250](#) and the [Standard Specifications](#).

WSDOT may conduct the compactive testing in cases where the utility does not have available resources or is unable to hire a certified tester to perform the testing. Any costs for testing incurred by the department are to be charged directly to the utility.

(4) Roadside Restoration

The utility is to restore all disturbed areas of soil, grass, shrubs, trees, or any combination thereof. Areas are to be restored in accordance with Standard Specification 8-02, the [Design Manual](#), the [Roadside Classification Plan](#), and the [Roadside Manual](#), and may include additional requirements from the Region Environmental Office. The inspector should consult with the Region Landscape Architect, who will work with the Region Environmental Office and the Maintenance Superintendent to determine the best course of action for each site.

700.05 Aboveground Facilities

There are three primary concerns relating to the installation or relocation of aboveground utilities. Generally, the approved location of utilities will be as defined in approved utility permits or franchises or utility relocation plans. Inspectors should be familiar with WSDOT policies regarding these requirements and be prepared to enforce the content of approved accommodation documents to ensure:

- Facilities avoid conflict with existing department facilities, highway construction, and maintenance activities.
- Facilities meet [Work Zone Traffic Control Zone Guidelines](#) (see [Chapter 9](#), Control Zone, for detailed information on control zone issues).
- Overhead utility lines have adequate vertical and horizontal clearance between the roadway and power lines/poles, WSDOT luminaires, guardrail, structures, drainage features, and so on.

The approved accommodation document and approved Traffic Control Plans must be on-site and must be followed, regardless of how quickly the work can be done.

The location of guy wires and anchors should be looked at closely for conflicts with existing utilities, clear zone requirements, future projects, and private landowners.

700.06 Bridge Attachments

Utilities may be installed on a highway structure by utility agreement as part of a WSDOT highway improvement project, or a utility or its contractor may make the installation independent of highway work. Regardless of who is responsible for the work, all attachments to structures must have written approval from the Headquarters (HQ) Bridge and Structures Office prior to installation.

When proposing an attachment to a structure, utility owners must submit plans detailing their attachment methods to the region for processing and approval by the HQ Bridge and Structures Office. Inspectors are to have access to copies of the office's approved plans and details. Refer to [Chapter 1](#), Utility Accommodation, for detailed information on obtaining bridge and structure attachment approvals.

700.07 Environmental Requirements

Generally, utility work within the operating highway right of way must meet the same standards as those imposed upon WSDOT. In some cases, however, utilities are exempt from certain environmental requirements, per [WAC 197-11-800\(23\)](#). Environmental regulations for different types of work vary based on the area of the state in which the utility facility is being installed and the impact(s) the work may have upon natural resources. Inspectors should be aware of what impacts utility work is having on the environment and inform the Region Environmental Office about environmental concerns prior to the start of work. Where there are known violations of environmental regulations, the inspector is to notify the Region Environmental Office and instruct the utility to cease work until the work can proceed in compliance with said regulations.

(1) Permits and Franchises

Where a utility is performing work as part of a permit or franchise, the utility owner is required to obtain all necessary environmental permits prior to beginning work. Where WSDOT has concerns related to the utility's environmental permits, the utility will be required to make those permits available to WSDOT prior to notice to proceed and, if part of the approval of the work, must have the permits on-site during construction (see [120.12](#), Environmental Considerations). The inspector should be given copies of the permits in advance of construction to review and then keep on-site during construction.

(2) WSDOT Projects

Where a utility is performing work related to a WSDOT project, the work may or may not be covered by the department's environmental permits for the project. Prior to the start of any utility work, the inspector should determine whether the utility is covered by WSDOT permits or has obtained its own permits.

Where the utility's work is covered by WSDOT's environmental permits, the inspector and the utility will be provided with copies of the permits, as well as the commitments made by WSDOT to the permitting agencies. Inspectors are to ensure the utility has copies of the permits and commitments on-site and that its work follows those requirements.

(3) Potential Problems and Common Requirements

A utility inspector should always be alert to the following potential problems:

(a) Hazardous Waste and Spill Prevention

Contaminants brought on-site by the utility, as well as contaminated water and soil encountered during excavation are to be contained and/or removed from the job site, and the Region Environmental Office, other appropriate region authority, or the headquarters Hazardous Materials Program, is to be notified. Existing contamination, residual contamination from a cleanup, or portions of a contaminated site, in the right of way may be indicated by a notation on the Right of Way Plan. Therefore the utility inspector must review the Right of Way Plan sheet[s] for potential for contamination to exist in the area of utility work. The notation will include information on the nature of contamination and include specific use restrictions to protect the integrity of the cleanup and limit the risk of exposure of hazardous substances. The utility should have a Spill Kit on-site and, in some cases, a Spill Prevention, Control, and Countermeasures (SPCC).

(b) Erosion and Sediment Control

Whenever it is necessary to remove vegetation or perform excavation, the utility is to take measures to control the erosion of soils and the transportation of sediment. The utility should use best management practices (BMPs) to ensure this is accomplished and may be required to provide a Temporary Erosion and Sediment Control (TESC) Plan (determined on a case-by-case basis). Special care should be taken to ensure water containing unacceptable amounts of sediment does not leave the work area. All water and sediment are to be contained within the work area until properly treated to an acceptable level. No untreated water is to be allowed to leave the work area or enter any waters of the state or private property.

In addition to controlling erosion and preventing sediment from entering any waterway, the utility is also to control airborne erosion particles such as dust.

(c) Dewatering

The utility must not allow discharged water from dewatering to leave the right of way unless it has obtained written permission from the subject landowner and provided a copy to the inspector. The utility should be aware at all times where the discharged water is flowing. Requirements for hazardous waste, erosion, and sediment control apply to dewatering operations, and the inspector is to remain alert to the potential for these types of problems as well as possible damage to the roadway.

(d) Cultural or Archaeological Discoveries

During excavation, the utility should be alert to the possibility of discovering items of cultural or archaeological significance, such as skeletal remains, fossils, or other artifacts. If these types of items are encountered, the utility will cease work immediately and inform the inspector (if not already present). The inspector will contact the Region Environmental Office for further notification of the proper authorities. The utility must obtain written approval from the approval authority before restarting work.

700.08 Communication With Others

Utility inspectors will be communicating with a variety of individuals from many different organizations. They should have contact information for WSDOT Environmental, Hazardous Materials, Maintenance, Electrical, and Traffic offices, as well as utilities, construction PEOs, local governments, the Department of Ecology, emergency services, and others.

(1) Utility Companies

Officials and employees of utility companies will make up the majority of the people with whom the inspector will be communicating. The inspector should maintain good working relationships with these individuals, respecting their opinions and ideas, while still upholding the best interests of the department.

(a) **Utility Forces**

Installation by a utility company's own forces means communicating with representatives of the utility that holds the approved accommodation document. This is a direct relationship between the department and the utility owner, and the utility inspector should feel free to communicate with the crew foreman directly.

(2) Contractors

Installation of utilities may be done by utility company forces or by contractors hired by the utility to install utilities on the company's behalf. For WSDOT utility inspectors, the inspection relationship may differ between the two. Regardless of who is doing the work, the necessary documentation must be on-site. If not, the contractor is to immediately stop work within WSDOT right of way until the approved accommodation document and other required documentation is obtained and available on-site.

(a) **Utility Contractors**

Utility companies often contract with a third-party contractor to install utilities on the utility owner's behalf. This is an indirect relationship between the contractor and WSDOT. Utility owners are ultimately responsible for the conduct of their contractors and are required to have their own inspectors on-site to monitor their contractors' work.

All permits and franchises approved and issued to utilities are to contain a Special Provision with the following language:

Should the utility choose to perform the work outlined herein with other than its own forces, a representative of the utility shall be present at all times unless otherwise agreed to by the department representative. All contact between the department and the utility's contractor shall be through the representative of the utility.

Inspectors usually communicate directly with a utility contractor without any problems. However, the utility inspector may also work with the utility owner's contact responsible for oversight of the contractor. Even though WSDOT has an indirect relationship with the contractor, safety issues are to be immediately communicated to the utility's contractor and the utility.

(b) **WSDOT Contractors**

On WSDOT projects, the official representative of the department is the Project Engineer, who typically delegates authority to project inspectors. The relationship between the utility inspector and the Project Engineer's Office may differ slightly between projects. However, as subject matter experts, utility inspectors should work to insert themselves into the project appropriately to ensure the department's Utilities Accommodation Policy is adhered to in a manner that does not delay the delivery of the project. If appropriate and agreeable to the Project Engineer, utility inspectors may communicate directly with WSDOT's contractor.

(3) **Preconstruction Conferences or Meetings**

Preconstruction conferences or meetings are an effective way to communicate about upcoming utility work. Where utility work is included in a WSDOT highway construction contract or is taking place during the progress of work on the project, the formal preconstruction conference held by the Project Engineer provides a means of communication between the state, its contractor, and the utilities. This type of meeting allows all parties to discuss how they will coordinate and schedule the various items of work.

Where utility work is taking place prior to or separate from a WSDOT project, a preconstruction conference or meeting will need to be organized between the state and the utility or utilities. This can be accomplished by a formal “sit-down” meeting in an office setting, an on-site meeting in the field, or by telephone (in some cases), depending on the complexity of the work to be performed.

700.09 Documentation

Documentation of utility activities is important for a number of reasons. The Region Utilities Office needs accurate records of the type, size, and location of utilities within the right of way. Although the utility is required to provide this information in its permit or franchise application as well as as-builts, good documentation will help to verify the information the utility provides.

- Documentation of past utility construction can help to determine how future construction activities might be done. This could be quite valuable for making decisions during the accommodation process or while coordinating the relocation of utilities during the design process.
- Documentation of the actual hours worked by an inspector on a specific project could assist in settling disputes over charges received by a utility for inspection.
- Documentation of work activities related to payable utility agreements is essential to verifying that the invoice submitted by the utility contains work that was actually performed and costs that were actually incurred.

Documentation is typically done using the diary page of the Inspector’s Daily Report ([DOT Form 422-004A EF](#)). However, it is not mandatory that this form be used as long as the work is documented in some way, such as by e-mail, MS Word, or Construction Project Diary ([DOT Form 422-014](#)).

Documentation of utility work should contain all pertinent information regarding the work, such as date; times; SR number; milepost; offset from centerline; type, size, and quantity of materials used; traffic control; and work activities. Equipment hours used, labor hours, and occupations may also be valuable information to document. Record all pertinent conversations; orders given; weather; site conditions; problems encountered and their resolutions; times when work activities changed; and times when traffic control changed. Take pictures before, during, and after construction, including traffic control setups. Record any as-built conditions that are a change to the original permit/franchise or agreement. Document the reasons and approvals for the changed conditions. Record offset and distances to any changed installation.

