



Highway Maintenance Manual

Bureau of Highway Maintenance

Chapter 9 Right-of-Way Use & Permits

December 2010

Section 15 Utility Accommodation

Subject 65 Requirements for Specific Utility Facilities

1.0 Utility Facility Condition Requirements

All utility facilities shall be maintained in a good state of repair both structurally and from the standpoint of appearance.

2.0 Communication & Electric Standards

The minimum standards for the design, construction, operation, and maintenance of communication- and electric-type utility facilities shall be those embodied in the Wisconsin Administrative Code for each of the various utilities and phases of utility activities covered therein. When the codes, ordinances, or laws of governmental agencies having jurisdiction are more restrictive, they shall govern. When neither the Wisconsin Administrative Codes nor the local governmental regulations apply, the communication facility shall at least conform to the currently applicable National Electrical Safety Code.

2.1 Type of Construction

For aboveground (overhead) installations, consider the following:

1) Single Pole

Longitudinal installations of overhead lines within the R/W should utilize single pole construction.

2) Joint Use

Joint use single pole construction should be used:

- a) At locations where more than one utility or type of facility is involved.
- b) When R/W widths approach the minimum needed for safe operations or maintenance requirements.
- c) When separate installations require extensive removal or alteration of trees.

2.2 Down Guy Locations

Guy wires to ground anchors and other supporting or bracing devices shall not be placed between a pole and the traveled way where they would encroach upon the clear zone unless specifically authorized by WisDOT utilizing breakaway technology. All down guy locations shall be labeled on plan sheets or other drawings submitted with a utility's permit application and shall have the distances noted as measured from the edge of the travelled way.

3.0 Fluid & Gas Standards

The minimum standards for the design, construction, operation, and maintenance of fluid- and gas-type utility facilities shall be those embodied in the Wisconsin Administrative Code for each of the various utilities and phases of utility activities covered therein. When the codes, ordinances or laws of governmental agencies having jurisdiction are more restrictive, they shall govern.

In addition to the Wisconsin Administrative Codes and local governmental regulations, the utility installations shall at least meet the following requirements:

- 1) Water lines shall conform to the currently applicable specifications of the American Water Works Association and the Standard Specifications for Water and Sewer Construction in Wisconsin.
- 2) Pressure pipelines shall conform to the currently applicable requirements of Title 49, Code of Federal Regulations of the Office of Pipeline Safety.

- 3) Liquid petroleum pipelines shall conform to the currently applicable recommended practice of the American Petroleum Institute for pipeline crossings under railroads and highways.
- 4) Sanitary and storm sewers shall conform to the currently applicable specifications of the Standard Specifications for Water and Sewer Construction.

3.1 Irrigation and Drainage Pipes, Ditches and Canals

Design and construct irrigation and drainage facilities installed across the R/W in accordance with WisDOT's specifications as shown in [Roadway Standards, Standard Detail Drawings](#). Appurtenances that would constitute a hazard to traffic shall not be permitted within the clear zone and should be located outside of the R/W. Where ditch rider roads are adjacent to ditches or canals that cross the highway, consideration shall be given to safety, traffic, operations, and economic features when providing for the continuity of such roads.

3.2 Requirements for Appurtenances

Vent standpipes are not required for casings, but when used, the vent pipes shall be located and constructed to not interfere with maintenance of the highway nor be concealed by vegetation. These pipes should stand near a fence or the R/W line.

If drains are provided for casings, tunnels, or galleries enclosing carriers of liquids, liquefied gases, or heavy gases, they shall not outfall into highway ditches or natural water courses.

3.3 Special Pipeline Treatments

Special treatment of pipelines beneath highways, including interstates and other freeways and including any median, should not be required provided the pipe would be installed by jacking and/or dry boring the carrier pipe to an essentially snug fit.

Special treatment such as casing, cathodic protection, thickened wall carrier pipe, coating and wrapping, concrete sleeves, or caps of particular pipe crossings shall be required if, in the determination of WisDOT, such installation shall be more protective of the highway or of the safety and convenience of the traveling public. Some examples where special treatment may be required include, but are not limited to, locations where:

- 1) A pipeline (whether crossing or a portion of pipe paralleling the highway) would pass in close proximity to a substructural part of a highway structure. This refers to pipes underground and not to pipes suspended on a highway structure, the latter of which should not require special treatment.
- 2) A pipeline would pass beneath the slope wall below a highway structure.
- 3) Restraints inhibit a pipe from being placed or remaining at the depth required by code.
- 4) The ground conditions are known to be particularly unstable.
- 5) Restraints inhibit a water pipe from being placed or remaining below the frost line.