## *1.0 Utility Facility Condition Requirements*

All utility facilities shall be maintained in a good state of repair both structurally and aesthetically.

## *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 within the ROW 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 right-of-way (ROW) 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, Drainage and Manure Pipes, Ditches and Canals

Design and construct permanent irrigation, drainage and manure facilities across the ROW in accordance with WisDOT's specifications as shown in FDM Chapter 16, 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 ROW. 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, locate and construct them to not interfere with highway maintenance nor be concealed by vegetation. Locate standpipes near a fence or the ROW line. Locate shut-off valves for pipelines outside of the clear zone and preferably off the ROW.

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

### 3.4 Crossing Requirements for Privately-Owned Pipelines

Allow privately-owned pipelines to cross under a state trunk highway (STH) when they have no adverse affect on the safety, operation, maintenance and future construction of the highway. This includes pipelines for potable water, irrigation, liquid manure, dairy effluent and similarly functioning facilities. Pipelines transporting frac sand slurry do not fall under the utility definition in HMM 09-15-05 as “other commodities” since they do not serve the public. Apply for these installations using a WisDOT work on highway ROW permit (DT1812).

Issue a utility permit only to the pipeline owner, who is responsible for any relocation and/or adjustment of the facility due to a highway improvement or maintenance project. The WisDOT utility permit does not transfer any land; nor give, grant or convey any land right, right in land, nor easement in WisDOT ROW. It is not assignable or transferrable. If the pipeline owner changes and WisDOT is notified in writing of the change, then void and supersede the old permit and issue a new permit to the new owner as long as sufficient proof of ownership is provided.

The applicant should consult with a local DNR office to determine if there are any potential waterways/wetlands or other environmental issues that may be affected by the proposed work. WisDOT may require proof of DNR coordination or copies of actual DNR permits prior to WisDOT permit issuance. See environmental coordination for more information.

When privately-owned pipelines cross under a STH, WisDOT may include the following supplemental permit provisions that require the owner to:

1) Bore the facility under the ROW from outside ROW to outside ROW, i.e., no excavation in the ROW. This may eliminate the need for work zone traffic control.

2) Install a shut-off valve on the upstream end of the flow and outside the ROW to avoid clear zone issues. A shut-off valve may also be needed on the downstream end if there is a chance for backup flow to occur.

3) Install casing if the pipe is under a major highway or the pipe size may increase in future years (thereby eliminating the need for an additional bore).

4) Not place the pipeline through any culvert or on top of any ditch or other portion of highway ROW.

5) Maintain the same ownership on each side of the highway. The permit shall be issued to the pipeline owner, not a lessee. If someone is leasing the land and will be involved in some manner with the permit, then WisDOT will require an agreement between the owner(s) and lessee(s) that will be included with the permit to document specific details including any financial responsibility that is apportioned.

6) Become a member of Diggers Hotline (DH). This is mandatory under Wis. Stat. s. 182.0175. This benefits other utilities that have to excavate in the area and is especially critical if hitting the pipeline could create adverse economic or environmental impacts. In addition, WisDOT may require that aboveground markers for the pipeline are placed on each side of the highway near the ROW line including a placard with the owner's name and 24/7/365 telephone number.

7) Provide an as-built record of bore depth (track) under the STH. This would require the use a bore head that can be tracked by a computer, i.e., a device that records the X, Y and Z components.

8) Record the permit with the Register of Deeds office to ensure that the document can be traced with a title search. This ensures that a prospective buyer knows about the private facility and its permit requirements if the associated property is for sale. WisDOT will record the permit on behalf of the permittee, and may charge the permittee for the cost.

9) Maintain sufficient insurance in case of a pipeline break causing highway damage and/or loss of use. The insurance can be a rider on a permittee's homeowners or business policy and shall name the State of Wisconsin or WisDOT and its officers, agents and employees as an additional insured with respect to the permitted work. The policy must also include a severability of interest endorsement. See the attached file for these requirements. WisDOT's risk manager may be consulted to determine insurance coverages based on potential damage to the highway.

   insurance-requirements-permits.pdf

   Provide WisDOT with a certificate of insurance (or similar document) prior to permit issuance. Also, provide an annual written or email notice that the insurance is still in effect, and every time the insurance limits or coverages are amended. WisDOT will keep the certificate and subsequent notices on file with the permit. See the attached file for an example.

   insurance-certificate-example.pdf