A POLICY FOR ACCOMMODATION OF UTILITIES

ON

STATE HIGHWAY RIGHT-OF-WAY

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION
BISMARCK, NORTH DAKOTA

www.dot.nd.gov

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Date

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I. POLICY

It is in the public interest for utility facilities to be accommodated on highway right-of-way when such use and occupancy do not adversely affect highway safety, construction, maintenance, or operations. In this respect, guidelines outlining safe and rational practices for accommodating utilities within highway right-of-way are of valuable assistance to transportation agencies. The guidelines herein are provided in the interest of developing and preserving safe highway operations and roadsides.

It is policy of the State of North Dakota to permit installation and maintenance of certain utility facilities on highway right-of-way under the jurisdiction of the North Dakota Department of Transportation (NDDOT), subject to the following conditions:

A. Such use and occupancy of the right-of-way does not interfere with the free and safe flow of traffic.

B. Such occupancy does not interfere with existing, planned, or future use of the right of way for highway purposes.

C. Such occupancy of the right-of-way does not impair the existing highway or its scenic appearance.

D. Installation and maintenance of utility facilities on the right-of-way are performed in accordance with the following state laws, federal regulations, and guidance:

- North Dakota laws as shown in Section III, “Authorization”
- Policy established by NDDOT Director as prescribed by the U.S. Department of Transportation, 23 CFR 645, “Utilities”

- The American Association of Highway and Transportation Officials publications titled *A Policy on the Accommodation of Utilities within Freeway Right-of-Way" and "A Guide for Accommodating Utilities within Highway Right-of-Way"* current issues
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- NDDOT Policy II-1-2 "Utilities," Executive Policy Manual. (See Appendix F).

E. It is intended that wherever any other applicable law or regulation differs from this policy, the more restrictive shall apply.

F. The utility must be relocated when it has been determined to be in conflict with the proposed highway improvement. The Utility Company will be reimbursed according to the following:

1. If the utility is located within 100 feet of the centerline of a state highway, or within 75 feet of the centerline of a county highway on the Federal Aid Secondary or County Secondary system, the utility must be relocated solely at the Utility Company's expense pursuant to Sections 24-01-42 and 43 of the North Dakota Century Code (1959).
2. Except for the provisions in F.1., if the Utility has prior rights, they will be reimbursed for the costs to relocate their facilities.
3. The Utility may provide betterments to the facility during the relocation but, the betterments are not eligible for reimbursement.
4. Existing utilities may remain in place under the highway right-of-way provided the installations conformed to the prescribed guidelines, in effect at the time the utility facilities were installed, do not interfere with existing, planned, or future use of the right of way for highway purposes, and provided that should the utility require maintenance, the utility owner will abandon the facility in-place. The abandoned

in-place utility must preserve the safety of the roadway and must not interfere with traffic operations.

G. When highway improvements require relocation of utilities, and it is deemed to be feasible and in the best interest of the state, the Department may acquire right-of-way for the relocation of utilities. Acquisition of right-of-way for the relocation of utilities must be requested by the utility organization. The utility organization will be required to permit the utility in accordance to the accommodations policy.

II. APPLICATION

This policy shall apply to all public and private utilities, including but not limited to, electric power, communications, cable television, water, gas, oil, slurry, petroleum products, steam, sanitary sewers, wireless telecommunication facilities (attachments, structures), drainage, irrigation, and all other facilities that are similar to those contained within in these policies.

Since the state is without legal authority to regulate installation of utility facilities on the right-of-way of that portion of a federal aid highway project which includes a city street, the city and NDDOT will enter into a "Maintenance Agreement" which provides for regulation and control of utility facilities installed within the street right-of-way, as outlined in "Utilities Accommodation Policy on City Portions of State Highway System." See Appendix C.

III. AUTHORIZATION

A. State Laws

Laws governing the use of right of way for utilities are in Chapter 1of Title 24 *State Highway System,* of the North Dakota Century Code may be accessed at the following website: www.legis.nd.gov/cencode/t24.html. Copies of the applicable sections are located in Appendix A.

B. Conformity

Unless otherwise specified herein, the location and design of all utility facilities within highway right-of-way shall conform to the provisions of 23 CFR, Part 645 Subpart B.

IV. GENERAL REQUIREMENTS

A. General Features

1. Highway safety is important when accommodating utility facilities within highway right-of-way. Utility accommodation must not adversely affect highway constructability, operations, maintenance, and safety.
2. All utility installations must be designed and located to avoid disturbing existing highway drainage or drainage facilities. Outlets or underdrains must be provided by the utility company, where necessary, for underground utility facilities.
3. On new installations or adjustment of existing utility facilities, provision should be made for known or planned expansion of the facilities, particularly those located underground or attached to bridges.

4. Utility permits are transferable with written permission from the department, and new permit applications will be required for any proposed changes in size, type, or location.

5. The applicant will notify the district engineer for the department 48 hours prior to the beginning of the installation work, except in emergencies affecting the health and welfare of the public. Immediately following the final cleanup of the area, the applicant shall again notify the district engineer.

B. Bonding

1. The applicant, if required by the design engineer, must furnish a performance bond issued by a responsible surety.

2. The performance bond must be in an amount equal to 100% of the estimated cost of the construction on the highway right-of-way.

3. The performance bond must be furnished prior to issuance of the permit.

4. The term of the performance bond must be as determined by the design engineer, to be in effect until the work is completed and vegetative growth restored.

5. The applicant (owner) must be responsible for any contractors or subcontractors secured for the purpose of installing, maintaining, relocating, or removing the facilities.

6. The applicant (owner) must have a copy of the permit available for inspection at the job site.

C. Location

1. Freeway

Installation of new utilities will not be permitted longitudinally within the control of access lines of any freeway, except that in special cases, such installations may be permitted under strictly controlled conditions. Installation of utilities will not be allowed longitudinally within the median area.

Where such longitudinal installations are requested, the utility owner must in each case show:

a. The accommodation will not adversely affect safety and traffic operations.

b. Alternate locations are not available or cannot be implemented at reasonable cost, from the standpoint of providing efficient utility services in a manner conducive to safety, durability, and economy of maintenance and operations.

c. The accommodation will not adversely affect the design, construction, operation, maintenance, or stability of the freeway.

d. It will not interfere with or impair the present use or future expansion of the freeway.

e. The location of the utility outside of the right-of-way would result in the loss of productive agricultural land, or loss of productivity of agricultural land, if any. In this case, the utility must provide information on the direct and indirect environmental and economic effects, which will be evaluated and considered by the Department pursuant to Title 23, U.S. Code Section 109(l)(1).

f. Utility distribution or feeder lines may be installed across freeways and interstate highways. However, such crossings must be spaced so as to minimize the need for crossings of individual service connections. Individual service connection crossings will be permitted in areas where utility service is not available within a reasonable distance from a distribution or feeder line located outside the highway right-of-way.

2. Non-Freeway

a. Utility facilities should be located to minimize the need for later adjustment to accommodate future highway improvements and to permit servicing such facilities with minimum interference to highway traffic. A minimum offset distance of 18 inches should be provided beyond the face of the curb to the face of utility appurtenance.

b. The alignment of longitudinal installations must be parallel to the centerline and must be located as near to the right-of-way line as practical, so as to provide a safe environment for traffic operation and to preserve space for future highway improvements or other utility installations. Where irregular shaped portions of the right-of-way extend beyond the normal right-of-way limits, variances in the distance from the right-of-way line may be permitted to maintain uniform alignment.

c. Utility facilities crossing a highway must be installed on a line generally perpendicular to the highway alignment.

d. Longitudinal utility installations on urban streets with closely abutting improvements may require variances to the recommended location on the highway right-of-way and consideration of alternate techniques conducive to safe traffic movement that are permitted by government and industry codes and standards. Such variances shall be resolved in a manner consistent with the prevailing limitations and conditions. A minimum offset distance of 18 inches should be provided beyond the face of the curb to the face of utility appurtenance.

e. The location of utility facilities and appurtenances shall be in accordance with the Americans With Disabilities Act.

D. Traffic Control and Safety

1. All utility construction and maintenance operations within highway right-of-way must be completed as expeditiously as possible. Construction or maintenance operations must be planned with full regard to safety of the highway users and utility personnel, and interference with highway traffic should be kept to an absolute minimum. On heavily traveled highways, utilities operations interfering with traffic will not be allowed during periods of peak traffic flow.

2. All traffic control devices used during the installation or maintenance of all utility facilities within highway right-of-way must conform to the current edition of the “Manual on Uniform Traffic Control Devices”, and to all current applicable standard drawings of the Department.

3. The applicant must submit a traffic control plan with the Application and Permit form. Work must not commence until the traffic control plan is reviewed by the district engineer. Warning signs shall be required when utilities are being installed anywhere on the right-of-way. The District Engineer may require any signs, devices, or flagpersons deemed necessary to safely control traffic through or around the work zone. District personnel will monitor traffic control procedures throughout the installation process. Failure of the utility company to comply with this requirement may result in forfeiture of the performance bond.
4. No vehicles, equipment, or personnel shall operate or park within the traveled way, or "clear zone", during installation or maintenance of said facility, unless approved, in writing, for open-trenching.
5. If a utility facility is permitted to be installed by open trenching across a highway, a 12-foot (3.7 m) traffic lane must be maintained on the roadway, or an approved detour provided, during installation of said facility.
6. If installation of a utility facility across a roadway necessitates temporary interruption of the flow of any highway traffic, work operations shall be confined to daylight hours and flagpersons must be provided to stop the traffic approaching the work area from each direction. Interruption of the flow of highway traffic may not exceed 5 minutes except by written permission from the department.

7. No materials shall be stored, equipment parked, or excavation piles placed in the "clear zone." All equipment not in use shall be parked at the outer limits of the right-of-way.

8. See Design Manual, Chapter 3 Section 18Work-Zone Traffic Control.

E. Control of Access

1. Freeways and Interstate Highways

The owner of the utility facility, to be installed on, over, or under the highway right-of-way, must present to the department the proposed method of access to and from the work-location site. Access to the outer portion of the right-of-way must be by: 1) a service road; 2) a trail along the highway right-of-way, which connects to a gate in the access-control fence, or to a crossroad, from which entry may be made. Vehicles and other work equipment shall not use through-traffic roadways or ramps during installation, maintenance, or removal of utility facilities on the right-of-way. However, in emergencies affecting the health and welfare of the public, the through-traffic roadways and ramps may be used by utility vehicles and other work equipment provided that prior consent to do so is obtained from the department, and that the utility company complies with requirements specified by the District Engineer for the safety and protection of highway users.

2. Non-Freeway

Vehicles and other work equipment used to install, maintain, or remove utility facilities within highway right-of-way must use established access points, service roads, driveways and approaches

to enter or leave the outer portion of the right-of-way for the performance of any necessary installation, maintenance or removal operations. Vehicles and other work equipment shall not use the through-traffic lanes or shoulder of the highway for work operations. However, in emergencies affecting the health and welfare of the public or for emergency restoration of an essential utility service, exceptions may be granted by the District Engineer.

F. Environmental and Land Use

Utilities must not cross or otherwise occupy highway right-of-way in a manner that adversely affects the aesthetic quality or appearance of the highway and its environment. This provision prohibits the removal and alteration of trees and terrain features visible to the highway user unless certain conditions are met, as determined by the Department.

G. Scenic and Public Use Areas

Installation of utility facilities will not be permitted within certain scenic and public use areas, except as follows:

1. New underground utility facilities will be permitted within such areas where they do not require extensive removal of, or damage to, trees visible to the highway user or detract from the appearance of the area. New aerial installations are prohibited within such areas unless there is no feasible and prudent alternative to the use of such lands, and it is demonstrated that:

    a. Alternate locations for the utility facility are not available, are extremely difficult, unreasonably costly, or are less desirable from the standpoint of scenic appearance.

b. Underground installations are not technically or economically practical, or are more detrimental to the aesthetic appearance of the area.

c. The proposed utility installation will be made at a location and in a manner that will not detract from the scenic qualities of the area, and will employ suitable designs and materials which give the greatest weight to visual quality.

H. Irrigation and Drainage Facilities

1. When notified by the Board of Managers of the Water Resource District, drainage facilities across highway right-of-way will be designed, constructed, and maintained by the department pursuant to the provisions of Sections 61-16.1-42 and 61-21-31 of the North Dakota Century Code, and the Maintenance Operations Manual, “Drainage into Highway Right-of-way.”

2. Irrigation facilities installed across highway right-of-way must be designed and constructed in accordance with the department’s specifications for highway bridges and culverts, and will be subject to approval by the department. Irrigation facilities shall be designed, installed, and maintained without cost to the department.

3. Appurtenances associated with irrigation and drainage facilities which may constitute a hazard to highway traffic, or interfere with highway maintenance operations, must be installed outside the highway right-of-way. The approaches for a service road along an irrigation canal or drainage ditch which crosses the highway must be constructed in

accordance with the department's specifications for highway approaches.

4. The department must be notified, in advance, whenever any repair, replacement or maintenance of irrigation or drainage facilities is to be performed within highway right-of-way. It must be the responsibility of the owner of said facilities to provide the necessary flag persons, barricades, and traffic signs for the safety and guidance of highway traffic.

5. The use of highway ditches to drain private lands, or for drainage by a Drainage District, Water Management Board, or governmental agency, will not be permitted except by special agreement with the department and other affected agencies.

6. Irrigation and drainage facilities installed across highway right-of-way must be designed, operated and maintained so as to avoid disturbing existing highway drainage or highway drainage facilities, and must not adversely affect the aesthetic quality or appearance of the highway, the right-of-way, or the adjacent environment.

7. Railings, guardrail, or other protective devices must be installed by the owner of the facility when required by the current issue of "AASHTO's Roadside Design Guide" or the "MUTCD."

I. Wetlands, Erosion Control, Drainage

1. Wetlands: The installation of privately-owned lines or conduits on the right-of-way for the purpose of draining adjacent wetlands onto the highway right-of-way is prohibited.

2. Erosion and Sediment Control: Erosion control measures must be implemented in order to prevent sediment runoff into waterways, lakes, wetlands, etc. Appropriate erosion control devices must be placed before work starts. The surface area disturbed by utility installations or relocations must be kept to a minimum.

3. Drainage: Care should be taken in utility installations to avoid disturbing existing highway or private drainage facilities.

J. Disturbed Areas

Within 30 days after installation, maintenance, or removal of utility facilities within highway right-of-way, all scars must be removed and the disturbed areas restored to their original condition and reseeded or resodded as specified in the permit. The class of seed and the amounts of seed and/or fertilizer to be used shall be approved, prior to seeding, by the district engineer of the department. The applicant shall be responsible for restoring vegetative growth on all disturbed areas.

K. Corrective Measures

When the department determines that an existing utility facility is unsafe, as determined by crash history or safety studies, the department will, in conjunction with the utility, initiate corrective measures. Requests for federal participation in the cost of adjusting, relocating, or otherwise correcting the utility facility must be subject to the provisions of 23 CFR 645.

L. Records

Records shall be maintained by the utility company that describes the alignment of the facility, usage, size, configuration, material, location, and vertical clearance (or depth of cover) at time of installation and any special

features such as encasement. This information should be in a reproducible form available to the department, other utilities and transportation agencies. As-built drawings must be submitted if the field inspection determines the utility is not installed in accordance to the original permit.

V. UNDERGROUND INSTALLATION

A. General

1. For all crossings, the angle of intersection between the utility crossing and the highway shall be as near to 90 degrees as practical, but in no case shall it be less than 60 degrees.
2. Crossings shall not be installed where conditions are unsuitable or unstable, such as deep cuts; near footings of bridges and retaining walls; across at-grade intersections at grade or ramp terminals; or in wet or rocky terrain where it would be difficult to attain minimum cover.
3. Vertical and horizontal clearance between the utility facility and any highway structure or other highway appurtenance or other utility facilities, must be sufficient for safe and convenient maintenance and repair of the highway structure or other utility facilities.
4. Trenches or pits opened within highway right-of-way must be backfilled with the same material originally in place and compacted to a density equal to that of the adjacent undisturbed soil. The backfill must be mechanically tamped in layers not exceeding 6 inches (152 mm) in compacted thickness. Consolidation of the backfill by saturation or ponding is prohibited. The stockpiled topsoil must be

evenly and smoothly replaced over the areas disturbed by the trenches or pits.

5. If the installation is by open trenching across the roadway, then the top 12 Inches (305 mm) of backfill immediately below the pavement structure of the highway will be Class 5 or as approved by the district engineer.

6. Excavated material shall not be placed on the through-traffic lanes, shoulders, inslopes, or within the clear-zone limits of the highway. Any unused excavated material must be removed from the right-of-way, or deposited on the right-of-way at a location approved by the Department.

7. If the existing highway pavement structure is removed or damaged during installation of a utility facility, the pavement structure must be replaced with the same type, quality, and section of material originally in place and restored to the original grade. The pavement structure must be replaced to the satisfaction of the Department.

   An exception to this is if the utility owner removes or damages the pavement structure during the installation, relocation, or maintenance of the utility, and this occurs prior to the Department's contractor placing a new pavement structure, the utility owner would not be required to replace the pavement structure provided that NDDOT's contractor will be placing the pavement within a reasonable time, and that the delay will not create a safety problem to the traveling public.

8. The permit owner shall be responsible for trench maintenance in all backfilled areas.

B. Pipelines

1. Locations

a. Existing longitudinal installations below the highway traveled way will be allowed to remain in place if the installation conforms to the guidelines in effect at the time of the initial permit, does not interfere with existing, planned, or future use of the right of way for highway purposes, and does not impede safety or traffic operations of the highway. New longitudinal installations below the highway traveled way will only be allowed in areas of congested rights of way that prevent installation outside of the traveled way.

b. Longitudinal installations within the right-of-way must be located as close as practical to the highway right-of-way line unless the location is in a future construction area. In the event of conflict with known or future construction, the Department will consider the use of an existing ditch bottom, provided all other provisions of this policy are satisfied.

c. All pipelines located within the right-of-way must be installed underground except for bridge crossings.

2. Cover

a. Pipelines within the highway right-of-way must be installed with a minimum of 3 feet (914 mm) of cover, as measured from the top of the casing pipe or uncased carrier pipe to the existing ground surface. If a minimum of 3 feet (914 mm) of cover cannot be provided, concrete slabs or similar materials must

be installed over the pipe as protection. Certain locations may necessitate more than 3 feet (914 mm) of cover where an increase in ditch depth may result from scour, ditch maintenance operations, or the need to increase the capacity of the ditch.

b. Pipelines carrying liquids, subject to freezing, must be installed below the frost line or must otherwise be adequately protected against freezing.

3. Encasement and Mechanical Protection for Pipelines not Requiring Cathodic Protection

a. Pipelines installed across interstate, freeways, and non-freeways must conform to the following:

Pipelines over 6 inches in diameter must be encased. Pipeline with extra wall thickness may be permitted, in lieu of casing, by the Design Engineer if designed by the specifications approved by the U.S. Department of Transportation's Hazardous Material Regulations Board.

Pipelines up to 6 inches in diameter must use extra wall thickness using the same design as for pipelines over 6 inches in diameter.

b. Casings must be designed to support the load of the highway and the live loads imposed on the highway. The casing pipe must be at least two nominal pipe sizes larger than the carrier pipe and must be composed of materials of satisfactory durability under conditions to which it will be exposed. Refer to

Encasement in AASHTO Publication "*A Guide for Accommodating Utilities within Highway Right-of-Way."*

c. Encasement in AASHTO Publication "*A Guide for Accommodating Utilities within Highway Right-of-Way."* The casing pipe must extend a minimum of 2 feet (610 mm) beyond the toe of the inslope of the roadway or beyond the clear-zone limits, whichever is furthest from the highway. On curbed sections, the casing pipe must extend outside the outer curbs.

d. Casing pipe must be adequately sealed at both ends with suitable material that will prevent the formation of a waterway through the casing. A drain may be installed, if necessary, to evacuate water from the casing pipe, except on liquid petroleum pipelines.

e. If uncased carrier pipe is installed in locations with less than the minimum cover, near footings of bridges or other highway structures, where the ground is unstable or subsiding, at locations vulnerable to damage from highway construction or maintenance operations, mechanical protection equivalent to casing must be provided for the carrier pipe.

f. Uncased carrier pipe installed across a highway must conform to material and design requirements of the currently applicable industry and governmental codes and specifications. The carrier pipe must be designed to support the load of the highway plus live loads imposed on the highway.

4. Vents

A vent pipe must be installed on the casing of pressurized carrier pipes transmitting liquid petroleum, natural gas, or other flammable or corrosive substances. The vent pipe must be not less than 2 inches (51 mm) in diameter and must project through the ground surface at the right-of-way line or fence line. The vent pipe must extend not less than 3 feet (914 mm) above the ground surface. The vent must be located at the high end of short casings and generally at both ends of casing longer than 150 feet (46 m). Vent pipes are not required on pipelines with extra wall thickness.

5. Manholes

Manholes may be installed within highway right-of-way if there is no practical alternative location; however, manholes must not be installed in the pavement or shoulders of the highway, except on city streets at locations where manholes are essential parts of existing or new utility systems. Manholes must be designed and located in such a manner that will cause the least interference with other utilities, future highway improvements, and normal highway traffic. The top of manholes must be flush with the existing ground line of the highway or surface of the city street.

6. Markers

All non-metallic underground lines must be accompanied by a trace wire, metallic tape, or other method to effectively locate and mark the underground lines. Whenever feasible, such methods should include devices incorporated into the utility line.

The locations of each pipeline crossing must be identified by a marker installed on each side of the crossing at the right-of-way lines or fences. Longitudinal installations of pipelines must be identified with markers placed along the right of way line at the termini of the pipeline and every 1000 feet (303 m) along the length of the installation. The longitudinal markers placed at 1000 foot intervals may be omitted if the utility participates in “North Dakota One-Call.” An identification sign must be installed on at least one of the marker posts, and must show the name, address, and telephone number of the utility company.

In urban areas, the utility may omit the surface markers provided the utility location can be identified by using conventional locating methods.

The location of natural gas pipelines must be marked as required by 49 CFR 192 for crossings of a public road and every 1000 feet at right of way line along longitudinal installations. In urban areas, markers are not required for gas mains in Class 3 or 4 locations (Part 192.707) where a Damage Prevention Program is in effect under Part 192.614.

7. Restrictions Against Altered Use

   a. The permit applications must specify the class of transmittant, the maximum working, test, or design pressures, and the design standard for the carrier pipe.

b. No change in transmittant or increased working pressure shall be made without prior approval of the department.

8. Installation

a. Open Trenching

1. Freeways

Pipelines may not be installed by open trenching through the surfaced sections of freeways.

2. Non-Freeways

Pipelines may be installed by open trenching across non-freeway highways if boring or jacking through the roadbed is impractical or extremely costly, provided the open trenching installation is specifically authorized in the permit.

b. Pipeline crossings by boring or jacking must be installed under the roadway section extending between the clear-zone limits.

c. If it is impractical to bore or jack between the clear-zone limits of divided highways, a pit of minimum practical size may be opened in the highway median and the casing pipe installed by boring or jacking pipe from the outside portals.

d. Wet-boring by high-pressure jetting of pipe under the highway is prohibited.

e. The existing topsoil for trenches or pits must be removed and stockpiled prior to excavating. Trenches for installation of pipelines along or across highway right-of-way must be constructed in accordance with current OSHA standards,

f. Bedding must be provided in an open trench through the surfaced section of the highway to a depth of 6 inches

(152 mm) or half the diameter of the pipe, whichever is the least. Bedding must consist of granular material, 1 inch (2.54 cm) maximum in size, free of lumps, clods, stones or frozen materials and should be graded to a firm, but yielding, surface without abrupt changes in bearing value.

C. Underground Electric Power and Communication Lines.

1. General Features

a. Freeways

Splice pits, risers, pedestals, and other above-ground facilities associated with underground electric power and communications wires and cables must be installed outside the access-control fences.

b. Non-Freeways

Splice pits, risers, pedestals, and other above-ground facilities associated with underground electric power and communications wires and cables may be installed at the right-of-way line.

2. Location and Alignment

a. Freeways

Longitudinal installations will not be permitted within the access-control fence, unless mutually agreed to pursuant to pipelines, locations section of this policy, see IV.C.2.

b. Non-Freeways

Longitudinal installations within the right-of-way must be located parallel to the highway as near as practical to the

right-of-way line, but must not be installed less than 5 feet (1.52 m) from the toe of the inslope.

3. Installation

   a. Highway crossings must be installed under surfaced sections of all highways by boring or jacking pipe through the roadbed between the clear-zone limits. Wet boring by high-pressure jetting of the pipe under the highway is prohibited.

   b. Highway crossings may be installed by open trenching across non-freeway highways if boring or jacking pipe through the roadbed is impractical or extremely costly, and provided this method of installation is specifically authorized in the permit.

   c. If it is impractical to bore or jack pipe between the clear-zone limits of divided highways, a pit of minimum, workable size may be dug in the median and the utility facility installed by boring or jacking pipe from the portal limits into the pit.

   d. The existing topsoil for trenches or pits must be removed and stockpiled prior to excavating. Trenches for installation of underground electric power and communication wires and cables along or across highway right-of-way must be constructed in accordance with current OSHA standards.

   e. Where underground electric power and communication wires and cables are installed by plowing, the plowed ridges must be mechanically compacted and made flush with the original ground.

f. The diameter of the hole for bored or jacked installations must not exceed the outside diameter of the casing pipe by more than 1 inch (2.54 cm).

g. Oversized bores, overbreaks, unused holes and abandoned pipes must be backfilled with grout.

4. Cover

Underground electrical cables installed within highway right-of-way must have a minimum cover of 36 inches (914 mm). Underground communication wires and cables must have a minimum cover, within the right-of-way, of 36 inches (762 mm). Local fiber optic telephone wire must be installed a minimum of 36 inches (914 mm).

5. Markers

All non-metallic underground lines must be accompanied by a trace wire, metallic tape, or other method to effectively locate and mark the underground lines. Whenever feasible, such methods should include devices incorporated into the utility line.

The locations of each underground electric power and communication wires and cables crossing must be identified by a marker installed on each side of the crossing at the right-of-way lines or fences. Longitudinal installations of underground electric power and communication wires and cables must be identified with markers placed along the right of way line at the termini of the pipeline and every 1000 feet (303 m) along the length of the installation. The longitudinal markers placed at 1000 foot intervals may be omitted if

the utility participates in “North Dakota One-Call.” An identification sign must be installed on at least one of the marker posts, and must show the name, address, and telephone number of the utility company.

In urban areas, the utility may omit the surface markers provided the utility location can be identified by using conventional locating methods.

6. Casing

   a. Underground electric power and communication wires and cables may be installed across the highway without protective conduit or duct, except that encasement or other suitable protection must be provided in locations; 1) where there is less than minimum cover; 2) near the footings of bridges or other highway structures; or 3) near other locations where there may be a hazard.

   b. If casing or duct is installed under the surfaced section of the highway, the casing must extend a minimum of 2 feet (0.6 m) beyond the toe of the highway inslope or the clear zone, whichever is furthest from the roadway.

   c. The casing or duct must be adequately sealed at both ends with a suitable material that will prevent the formation of a waterway through the casing. Vents are not required on such installations. A drain may be installed, if necessary, to remove water from the casing pipe.

d. The casing or duct must be designed to support the load of the highway and live loads imposed on the highway and must be composed of material of satisfactory durability under the conditions to which it is exposed.

VI. UNDERGROUND TELECOMMUNICATION SYSTEMS

A. Interstate - Longitudinal installation of underground transcontinental telecommunication systems (wireline or fiberoptic) within the Interstate highway access control lines would be considered pursuant to “Program Guide: Utility Relocation and Accommodation on Federal–Aid Highway Projects.”

B. Non-Interstate – If permission is granted by the Director, underground telecommunication (wireline or fiberoptic) cables may be allowed to be installed longitudinally on other than interstate highway right-of-way and will be permitted to cross highway right-of-way at approved locations. The crossing must be installed as close to perpendicular to the highway alignment as possible.

Installation must be as follows:

1. Tele-communication systems crossing state boundaries must have “48” cover for crossing and longitudinal installations.
2. Conduit: (Also, See Section VI.C.6)
   a. All highway crossings must be installed inside conduit or casing pipe within the clear zones.
3. A 3" (76 mm) to 6" (152 mm), color-coded warning tape labeled continuously with "CAUTION - FIBER OPTIC BURIED

BELOW" shall be buried (762 mm) above the center of the cable. Additionally, the underground lines must be accompanied by a trace wire to effectively locate and mark the underground lines. Whenever feasible, such methods should include devices incorporated into the utility line.

VII. OVERHEAD ELECTRIC POWER AND COMMUNICATION LINES

A. General Features

1. It is the policy of the department to restrict installation of poles, guys, pedestals, and other above-ground utility facilities within highway right-of-way, in order to preserve a safe roadside environment, to retain the aesthetic quality of the highway, and to minimize interference with highway maintenance operations.
2. The minimum vertical and lateral clearances of overhead utility facilities within the highway right-of-way must conform to provisions of the latest edition of the “National Electrical Safety Code.”
3. Longitudinal installation of overhead utility lines on highway right-of-way must be limited to single-pole type of construction. At locations where more than one utility or type of facility is involved, joint-use single pole construction must be used if possible.

B. Location

1. Overhead electric power and communication poles and structures may not be installed longitudinally within the access control fences of divided highways.
2. Overhead utility lines may be installed on and along the right-of-way of non-freeway highways, provided the lines are located at, or near as practical to, the right-of-way line. On curbed sections, the utility facilities must be located as far as practical behind the back face of curbs and, if possible, behind the sidewalks or clear zone, whichever is greater.
3. Longitudinal installations of overhead utilities within a highway median are prohibited. At highway crossings, poles, guys and push braces supporting overhead utility lines are prohibited in a highway median.
4. Poles supporting overhead utility lines installed along or across highway right-of-way must be located as far as practical from the through-traffic lanes of the highway. Supporting structures must not be installed inside the "clear zone" unless the structures can be placed behind guardrails or retaining walls, beyond deep drainage ditches, at the toe of steep inslopes, or other similar protected locations. Guys and push braces must not extend into the highway right-of-way beyond the midpoint of the backslope. A minimum offset distance of 18 inches should be provided beyond the face of the curb to the face of utility appurtenance.

VIII. WIRELESS TELECOMMUNICATION FACILITIES

A General Features

1. Wherever any applicable law, regulation, ordinance, or guidance differs from this policy, the more restrictive shall apply.
2. A wireless communication facility may be attached to an existing department owned light standard. The applicant must obtain and provide a structural analysis, signed by a professional engineer registered in the state, that the existing light standard is adequate to support the additional loading of the attachment. Attachments may not interfere with the original design, operation, and maintenance of the light standard.
3. A wireless communication facility may be installed by replacing an existing department owned light standard with a replacement structure. The replacement structure shall be installed in the same location as the existing light standard as to maintain the existing photometric design. The replacement structure shall be a break away pole in accordance with the department's current specifications and Design Manual. The replacement structure will become property of the department or local jurisdiction (as specified in an agreement).

4. A wireless support structure, for the purpose of supporting a wireless communication facility, may be installed when no existing light standards exist. At locations where more than one wireless communication facility is involved, joint-use wireless support structure construction must be used if possible.

5. Wireless support structures must be limited to a single-pole type construction and not to exceed 50 feet in height.

6. The applicant will be responsible for any and all services (e.g. power source, communication lines) required to operate the proposed infrastructure and services.

B. Location

1. Wireless communication facilities and supporting structures may not be installed within the access control fences of divided highways.

2. Attachments to existing department owned light standards and replacement structures may be installed within a highway median. Wireless support structures within a highway median are prohibited.

3. Wireless communication facilities and supporting structures may be installed in the right-of-way of non-freeway highways within city portions of the state highway system.

4. Wireless support structures may be installed on and along the right-of-way of non-freeway highways within city portions of the state highway system, provided the structures are located at, or near as practical to, the right-of-way line. On curbed sections, the facilities must be located as far as practical behind the back face of curbs (minimum offset distance of 18 inches) and, if possible, behind the sidewalks or clear zone, whichever is greater.

C. Design Parameters

1. Wireless communication facilities and supporting structures installed on non-freeway highways within city portions of the state highway system shall follow the design standards and material finishes as described by the local jurisdiction.

IX. INSTALLATIONS ON HIGHWAY STRUCTURES

A. General Features

1. Attachments of utility facilities to bridge structures should be avoided where it is reasonable to locate them elsewhere. However, where other locations prove to be difficult and unreasonably costly, attachment to a bridge structure will be considered, provided the attachment can be made without materially affecting the structure, the safety of traffic, the efficiency of maintenance of the structure, the efficiency of bridge inspections, its appearance, and provided the structure can support the additional load.

2. Generally, utility installations must be attached to the bridge structure beneath the structure's floor, between the outer girders or beams or within a cell, and at an elevation above low superstructure steel or masonry.
3. The location of utility facilities on a structure which will interfere with access to parts of the structure for painting or repair is prohibited. Manholes for utility access will not be permitted in the bridge deck.
4. The utility installation on the bridge must be mounted so as not to reduce the vertical clearance above a river, stream, pavement, or top of rails. Utility attachments to the outside of bridges will not be permitted unless there is no reasonable alternative.
5. Utility facilities must be firmly attached to the bridge structure and padded, where necessary, to eliminate noise and abrasion due to vibrations.
6. Installation of utility facilities through the abutment or wingwall of an existing bridge is prohibited.
7. In locations where a utility facility attached to a structure is carried beyond the back of the bridge abutment, the facility must curve or angle out to its proper alignment outside the roadbed area as quickly as is practical.
8. Utility facilities may be attached to structures by hangers or roller assemblies suspended either from inserts in the underside of the bridge floor or from hanger rods clamped to a

flange of a superstructure member. Bolting through the bridge floor or concrete beams is prohibited. Welding of attachments to steel members, or bolting through such members is prohibited. Where there is transverse bridge steel extending sufficiently from the underside of the bridge floor to provide adequate clearance, utility facilities may be installed on rollers or neoprene-padded saddles mounted atop such transverse members.

9. The design of a utility facility attached to a highway structure must include satisfactory provisions for linear expansion and contraction due to temperature changes. Line bends or expansion couplings may be used for this purpose. Materials used for attaching a utility facility to the structure must be compatible with the structural material to eliminate the possibility of corrosion.

10. A utility facility and associated appurtenances attached to a highway structure must be painted when requested by the Department. The type and color of the paint will be approved by the district engineer.

11. Each proposed bridge attachment will be considered on its individual merits.

B. New Bridge Structures

1. Where the Department plans to construct a new bridge structure, the design of the structure will, upon request of a utility company, be reviewed for accommodation of existing or

proposed utility installations consistent with the requirements set forth herein. The utility company may be required to reimburse the state for any additional costs associated with accommodation of the utility facility on the new structure.

2. Installation of a facility by a utility company on a new structure must be coordinated with the bridge construction so as not to interfere with the operations of the highway contractor.

C. Pipelines

1. Pipelines, except those requiring cathodic protection and those carrying natural gas, must be encased throughout the bridge and the casing must be carried beyond the back of the bridge abutment, and effectively opened or vented at each end. The casing pipe must be designed to withstand the same internal pressure as the carrier pipe. Pipeline with extra wall thickness may be permitted, in lieu of casing, by the Design Engineer if designed by the specifications approved by the U.S. Department of Transportation's Hazardous Material Regulation Board.

2. The carrier pipe must be pressure tested before start-up in accordance with the latest edition of applicable industry codes, or appropriate regulations of an agency of the federal government.

3. Emergency shut-off valves must be installed on all pipeline attachments to a highway structure where such pipeline carries gas, liquid petroleum, or other hazardous materials under

pressure. The shut-off valves should preferably be of automatic design and placed within an effective distance on each side of the structure, unless the pipeline is equipped with nearby shut-off valves or operates under effective control of automatic devices.

4. Pipelines carrying liquids subject to freezing must be protected to prevent the liquids from freezing.

D. Power and Communication Lines

1. Electric power and communication lines attached to a highway structure must be insulated from the structure, and carried in protective conduit or pipe throughout the bridge and to underground locations at each end of the structure. Exposed metallic conduit carrying electrical cables must be grounded separately from the structure.

2. Attachments for electric power and communication lines must provide sufficient clearance for convenience and safety during maintenance and repair of bridge structure or other utility installations on the bridge.

X. HIGHWAY LIGHTING AT JUNCTIONS

A. Wood-pole lighting is permitted at the junction of two highways or a street and highway. A maximum of two light standards will be permitted on two-lane highways and a maximum of four light standards on four-lane highways.

B. Wood poles must be installed outside the highway clear zone unless they are installed behind a barrier, such as curb and gutter or guardrail. A minimum offset distance of 18 inches should be provided beyond the face of the curb to the face of utility appurtenance.

C. Each request for approval must include the following additional information:

1. A scaled geometric drawing identifying the roadways, showing all roadway dimensions and the locations of the proposed luminaries.
2. Luminarie information including lamp size, IES Type, initial horizontal lumens and photometric data.
3. Mounting height, mast arm length, pole setback and type of light standard to be used.
4. Design calculations.
5. Character of existing street lighting along the intersecting roadways.

D. Upon removal of a lighting system installed by a utility company from highway right-of-way, the utility company must inform the Department as to the date and reason for such removal. This requirement will not apply when the Department is involved in the replacing of the existing system by a new one.

XI. PERMITS

A. General

1. A written permit must be obtained from the Department Director prior to installing or modifying a utility facility or adjusting an existing utility facility, on, over, or under highway right-of-way on the state highway system. See Appendix D. In addition, the utility owner must coordinate with all other agencies and obtain the necessary permits.
2. More than one installation may be requested on the permit form, provided that they are in the same highway district and on the same highway.
3. Application for a permit must be in writing and include two drawings showing the proposed location of the utility facility within highway right-of-way. The drawings must include plan dimensions of the proposed installation in relation to right-of-way lines, centerline of the roadway(s), access control fences, highway structures, and the locations and size of any boring or jacking pits. The application must include a general description of the type, size, and design of the utility facility to be located within the right-of-way and a written description of the proposed method of installation. The application must show the location of the proposed facility, in footage, to the nearest highway reference marker.
4. Prior to issuance of a permit authorizing installation of a utility facility within highway right-of-way, the proposed installation

will be reviewed for possible conflict with existing or planned use of the right-of-way for highway purposes. Installation of a utility facility within highway right-of-way must be at a location, and installed in such a manner, so as not to impair the existing highway, conflict with planned future highway improvements, interfere with the free and safe flow of highway traffic, or impair the scenic appearance of the highway.

5. Permit applications for installation of utility facilities on right-of-way of federal aid highway projects must be subject to prior approval by the Federal Highway Administration under the following circumstances:
    a. Utility installations on federal aid highways where the proposed use and occupancy of the right-of-way is not in accordance with the policies and procedures set forth herein.
    b. Utility installations on freeways involving special case exceptions, as described in AASHTO policy entitled "A Policy on the Accommodation of Utilities on Freeway Right-of-way."
    c. Longitudinal installation of private lines.

6. All fees and bonds are due prior to the issuance of the permit except the fee required for inspection trips after the initial inspection. See Appendix E.
7. Permit Application Information

8. All permit applications must include the following:
    a. Completion of all applicable blanks in the blocks titled Applicant Information, Location of Facility, and Type of Facility. Be sure to circle the number of lanes of traffic and the applicable direction(s).
    b. Two (2) copies of the plan view of the proposed facility. The size of the plan sheet should preferably be 8½ “x 11" but no larger than 11" x 17".
    c. Two (2) copies showing the locations and size of any boring or jacking pits.
    d. The required permit fee(s). See Appendix E.
    e. Proposed traffic control plans.
    f. The general rule for the highway reference system is as follows:
        1. On east/west highways, reference marker 0 is at the west end, with left to the north and right to the south.
        2. On north/south highways, reference marker 0 is at the south end, with left to the west and right to the east.

XII. NON-COMPLIANCE

Non-compliance with any of the terms of Department policy, permit, or agreement, may be considered cause for shut-down of operations, withholding of relocation reimbursement until compliance is assured, or forfeiture of the performance bond. The cost of the work caused to be performed by the State in removal of non-complying construction will be assessed against the owner of the utility facility, or the owner's performance.

XIII. REFERENCES (CURRENT ISSUES)

1. American National Standards Institute (ANSI) Standard Code for Pressure Piping, 25 West 43rd Street, New York, NY 10036
    a. ANSI B 31.1, Power Piping
    b. ANSI B 31.3, Process Piping
    c. ANSI B 31.4, Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia and Alcohols
    d. ANSI B 31.8, Gas Transmission and Distribution Piping Systems
2. American Water Works Association (AWWA) Standards and Specifications, 6666 W. Quincy Avenue, Denver, CO 80235.
3. United States Department of Transportation Federal Motor Carriers Safety Administration
4. 23 CFR 645
5. National Electric Safety Code.
6. American Association of State Highway and Transportation Official's, (AASHTO) Roadside Design Guide

7. U.S. Department of Transportation, Federal Highway Administration's, "Manual on Uniform Traffic Control Devices."

8. AASHTO "A Policy on the Accommodation of Utilities Within Freeway Right-of-Way"

9. AASHTO "A Guide for Accommodating Utilities Within Highway Right-of-Way"

10. USDOT, FHWA "Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects.

XIV. APPENDICES

A. State Laws

B. Glossary

C. Utilities Accommodations on City Portions of State Highway System.

D. Permit Form.

E. Permit Fees.

F. Policy Memoranda.

G. District Office Information and Map.

H. Access for Constructing and/or Servicing Utilities

I. Utility Permit Cancellation Notice SFN 19721

APPENDIX A

State Laws governing the use of right of way for utilities are in Chapter 1of Title 24, *State Highway System* of the North Dakota Century Code. It is the responsibility of the applicant to assure they are using the most recent version of the NDCC when conducting research regarding ND state law. However, for convenience, certain portions of the 2005 version of the NDCC are reprinted here for your use.

A. The following section of the North Dakota Century Code authorizes the NDDOT Director to permit construction, operation, and maintenance of utility facilities on, over, or under highway right-of-way under the jurisdiction of the department:

24-01-40. Right-of-Way for Utilities - Granted by Director. The Director may grant to any person, who is a resident of this state, or to any corporation organized under the law of this state, or licensed to do business within this state, the right-of-way for the erection of a telephone line or electric line over or upon any state highway or structure constituting part of such highway or to lay pipes, conduits, or tunnels in, through, or over any such state highway or structure, or to erect, construct, and maintain any bridge, conduit, or other crossing in, under, or over such state highway or structure and in accordance with the rules and regulations therefore.

B. The following section of the North Dakota Century Code authorizes the NDDOT Director to prescribe reasonable rules and regulations covering use and occupancy of highway right-of-way under the jurisdiction of the department:

24-01-39. Use of right-of-way for utilities subject to regulations by department. Electric transmission, telephone, or telegraph lines, pole lines, railways, ditches, sewers, water, heat, or pipelines, gas mains, flumes, or other structures outside of the limits of any municipality which under the laws of this state, may be constructed, placed, or maintained across or along any highway which is a part of the state highway system, by any person, persons, corporation, or subdivision of the state, may be so maintained or constructed only in accordance with such regulations as may be prescribed by the Department, which has power to prescribe and enforce reasonable rules and regulations with reference to the placing and maintaining along, across, or on any such state highway any of the utilities hereinbefore set forth. Nothing herein restricts the action of public authorities in extraordinary emergencies. Nothing in this chapter contained may be construed as modifying or abridging the powers conferred upon the public service commission in title 49, the intent of this section being that the powers hereby granted to the Department may be exercised only in such manner as not to conflict with valid exercise by the public service commission of the powers granted to it.

C. The following section of the North Dakota Century Code provides for the payment of costs to relocate existing utilities on federal aid highways: (See also Section III-08 of the Design Manual, Appendix D).

24-01-41. Relocation of utility facilities. Whenever the director determines and orders that any utility facility which now is, or hereafter may be, located in, over, along, or under the national system of interstate and defense highways, or urban extension thereof, qualifying for federal aid

should be changed, removed, or relocated to accommodate the construction of a project on the national system of interstate and defense highways, including extensions thereof within urban areas, the utility owning or operating such facility shall change, relocate, or remove the same in accordance with the order of the director; provided that the costs of the change, relocation or removal, including the costs of installing such facilities in a new location, must be ascertained and paid by the state out of state highway funds as part of the cost of such federally aided project, unless such payment would violate a legal contract between the utility and the state.

The term "utility" includes all cooperatively, municipally, publicly, or privately owned utilities, for supplying water, sewer, light, gas, power, telegraph, telephone, transit, pipeline, or like service to the public or any part thereof. "Cost of change, relocation, or removal" includes the entire cost incurred by such utility properly attributable to such change, relocation or removal after deducting there from any increase in the value of the new facility and any salvage value derived from the old facility.

Nothing herein contained may be construed to affect in any way the right of any utility to receive just compensation for the expense of changing, removing, or relocating its facilities located in a private right-of-way.

D. The following section of the North Dakota Century Code provides for the construction limitations on highway right-of-way:

24-01-42. Construction of utility facility - limitation. No person, firm, or association may construct any electrical supply or communication line, gas, oil, or water or other pipeline parallel to and within one hundred feet (30.48

meters) of the centerline of any state highway right-of-way or within seventy-five feet (22.86 meters) of the centerline of any county highway right-of-way without first obtaining the consent of the director or board of county commissioners except that such prohibition does not apply to highways or streets located within areas platted as townsites or additions and subdivisions thereof.

E. The following section of the North Dakota Century Code provides that any urban street which constitutes a part of the state highway system shall be under the jurisdiction of the city:

24-01-03. **Responsibility for state highway system**. The director is responsible for the construction, maintenance, and operation of the state highway system and is authorized to enter into a cooperative agreement with any municipality for the construction, maintenance, or repair of any urban connecting street.

The jurisdiction, control, and duty of the state and municipality with respect to such urban connecting streets must be as follows:

1. The director has no authority to change or establish any grade of any such street without approval of the governing body of such municipality;
2. The municipality shall, at its own expense, maintain all underground facilities in such streets and has the right to construct such additional underground facilities as may be necessary in such streets;
3. The municipality has the right to grant the privilege to open the surface of any such street, but all damage occasioned thereby must

promptly be repaired by said municipality at its direction and without cost to the Department.

4. The municipality has exclusive right to grant franchises over, beneath, and upon such streets.

APPENDIX B

GLOSSARY

ACCESS CONTROL – Access to the highway can be made only at designated points.

AVERAGE DAILY TRAFFIC - The average 24-hour volume, being the total volume during a stated period divided by the number of days in that period. Unless otherwise stated, the period is a year (abbreviated as ADT).

AASHTO - American Association of State Highway and Transportation Officials

BACKFILL - Replacement of suitable material compacted as specified around and over a pipe, conduit, cable, casing, or gallery.

BEDDING - Organization of soil or other suitable material to support a pipe, conduit, casing, or utility tunnel.

BORING - The operation by which large carriers or casings are jacked through oversize bores. The bores are carved progressively ahead of the leading edge of the advancing pipe as soil is mucked back through the pipe.

CAP - Rigid structural element surrounding a pipe, conduit, casing, or utility tunnel.

CARRIER - Pipe directly enclosing a transmitted fluid (liquid or gas).

CASING - A larger pipe enclosing a carrier.

CFR – Code of Federal Regulations.

CLEAR ZONE - That roadside border area, starting at the edge of the traveled way, available for use by errant vehicles.

COATING - Material applied to or wrapped around a pipe.

CONDUIT OR DUCT – A pipe or tubular runway for protecting wires or cables.

CONFLICT – A utility installation that does not conform to the guideline established by "A Policy for Accommodation of Utilities on State Highway Right-of-Way," and

includes existing, proposed, and future highway construction. A utility shall abide by the current version of this Policy each time a permit is authorized for its work. When future changes are made to this policy, an existing utility facility is not required to meet the new version unless proposed changes to that facility require a new permit from the NDDOT.

CONFLICT RESOLUTION – In the event there is a disagreement between a utility organization and the NDDOT regarding how any specific point in this Accommodation Policy should be interpreted, the utility may submit a written request for consideration by the Director. Upon reviewing the request, the Director will render a decision. A decision by the Director regarding any dispute over the interpretation of the Accommodation Policy shall not exclude the opportunity by the utility to pursue legal action if they deem it necessary.

CONTROL OF ACCESS - The condition where the right of owners or occupants of abutting land or other persons to access, light, air, or view in connection with a highway is fully or partially controlled by public authority.

FULL CONTROL OF ACCESS - Access is controlled to give preference to through traffic. Access connections for selected public roads only are provided; at grade crossings and direct private driveway connections are prohibited.

PARTIAL CONTROL OF ACCESS - The control of access is exercised to give preference to through traffic to a degree that, in addition to access connections with selected public roads, there may be some crossings at grade and some private driveway connections.

COVER - Depth to top of pipe, conduit, casing, cable, or similar linear utility tunnel below the earth or roadway surface.

CRADLE - Rigid structural element below and supporting a pipe.

DEPARTMENT –"Department" means the department of transportation of this state as provided by Section 24-02-01.01 NDCC.

DIRECT BURIAL - Installing a utility underground without encasement.

DIRECTOR -"Director" means the Director or the Department of Transportation of this state, acting directly or through authorized agents as provide in Section 24-02-01.3 NDCC.

DIVIDED HIGHWAY -"Divided Highway" means the highway with separated roadways for traffic in opposite directions.

DRAIN - Appurtenance to discharge liquids from casings.

ENCASEMENT - Structural element surrounding a pipe.

ENCROACHMENT - Unauthorized use of highway right-of-way for any purpose.

EXPRESSWAY - A divided arterial highway for through traffic with full or partial control of access and generally with grade separations at major intersections.

FLEXIBLE PIPE - A plastic, fiberglass, or metallic pipe having a large ratio of diameter to wall thickness which can be deformed without undue stress.

FREEWAY -"Freeway" means an expressway with full control of access.

FRONTAGE ROAD - "Frontage street or road" means a local street or road auxiliary to and located on the side of an arterial highway for service to abutting property and adjacent areas and for control of access.

GALLERY - An underpass for two or more utility lines.

GROUNDED - Connected to earth or to some extended conducting body whether the connection is intentional or accidental.

GROUT - A cement mortar or a slurry of fine sand or clay.

HIGHWAY, STREET, OR ROAD -"Highway, street, or road" means a general term denoting a public way for purposes of vehicular travel, including the entire area within the right-of-way. A highway in a rural area may be called a "road", while a highway in an urban area may be called a "street".

INTERSTATE SYSTEM – "Interstate system" or "interstate highway system" means that part of the state highway system designated as the North Dakota portion of the national system of interstate and defense highways as provided for in Public Law 85-767 [23U.S.C. 101 et seq.]

JACKET - Concrete encasement around a pipe.

LIGHT STANDARD – a department owned structure that emits light and is generally less than 50 feet in height. A light standard does not include a high mast light or a light pole mounted atop of a signal standard system.

MANHOLE - An opening in an underground system which workmen or others may enter for the purpose of making installations, inspections, repairs, connections, and tests.

MEDIAN -"Median" means the portion of a divided highway separating the traveled ways for traffic in opposite directions.

MUTCD - Manual of Uniform Traffic Control Devices.

NORMAL - Crossings at a right angle.

NORTH DAKOTA ONE-CALL - Excavation Notice System.

OBLIQUE - Crossing at an acute angle.

PAVEMENT STRUCTURE - The combination of subbase, base course, and surface course placed on a subgrade to support the traffic load and distribute it to the roadbed.

PERMIT - The document by which the Director or designee authorizes the use and occupancy of highway rights-of-way for utility facilities or private lines.

PIPE - A tubular product made as a production item for sale as such. Cylinders formed from plate in the course of the fabrication of auxiliary equipment are not pipe as defined here.

PIPELINE - A line of pipe with or without pumps, valves, and control devices for conveying liquids, gases, or finely divided solids.

PLOWING - Direct burial of utility lines by means of a "plow" type mechanism which breaks the ground, places the utility line, and closes the break in the ground in a single operation.

PORTAL - The entry or exit location where a utility is to be bored, jacked, or installed by other than the open-cut method.

PRESSURE - Relative internal pressure.

PRIVATE LINES - Privately-owned facilities as defined by "Utility," but devoted exclusively to private use.

REPLACEMENT STRUCTURE – a department owned structure with a primary function of serving a public purpose that is located and designed in such a manner so as to also serve as a wireless support structure, but that secondary purpose of providing a wireless support structure is not readily apparent.

RIGHT-OF-WAY - ”Right-of-Way” means a general term denoting land, property, or interest therein, acquired for or devoted to highway purposes and shall include, but not be limited to public owned and controlled rest and recreation areas, sanitary facilities reasonably necessary to accommodate the traveling pubic, and tracts of land necessary for the restoration, preservation, and enhancement of scenic beauty adjacent to the state highway system.

RIGID PIPE - Pipe designed for diameter deflection of less than 1 percent.

ROADSIDE - “Roadside” means a general term denoting the area adjoining the outer edge of the roadway. Extensive areas between the roadways of a divided highway may also be considered roadside.

ROADWAY - “Roadway” – means in general, the portion of a highway, including shoulders, for vehicular use. In construction specifications, the portion of a highway within limits of construction.

SAFETY REST AREA - A roadside area with parking facilities separated from the roadway provided for motorists to stop and rest for short periods. It may include drinking water, toilets, tables and benches, telephone, information, and other facilities for travelers.

SCENIC OVERLOOK - A roadside area provided for motorists to stop their vehicles beyond the shoulder, primarily for viewing the scenery in safety.

SEMI-RIGID PIPE - Pipe designed to tolerate from 1 percent to 3 percent. diametric deflection.

SLAB (FLOATING) - Slab between but not contacting pipe or pavement.

SLEEVE - Short casing through pier or abutment of highway structure.

TRANSMITTANT - The substance being transmitted by the utility.

TRAVELED WAY - ”Traveled Way” means the portion of the roadway for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

TRENCHED - Installed in a narrow open excavation.

UNTRENCHED - Installed without breaking ground or pavement surface, such as by jacking or boring.

UTILITY - Service supplied to the public including, but not limited to, water, sewer, light, gas, power, telegraph, telephone, transit, pipeline, wireless telecommunication facilities, and fiber optic lines, and all facilities similar in nature.

VENT - Appurtenance to discharge gaseous contaminants from casing.

WALLED - Partial concrete encasement alongside pipe.

WIRELESS COMMUNICATION FACILITY – means any fixed tangible asset usable for the purpose of providing wireless transmission of voice, data, images or other signals or information including, but not limited to, telecommunications, cellular telephone service, personal communications service and paging service. A wireless communications facility includes antennas and accessory equipment. A wireless communications facility does not include an underlying wireless support structure.

WIRELESS SUPPORT STRUCTURE – any fixed, above-grade structure used to house or support “only” a wireless communication facilities and equipment.

APPENDIX C

UTILITIES ACCOMMODATION POLICY
ON CITY PORTIONS OF STATE HIGHWAY SYSTEM

1. Utility installation within the project limits, regardless of utility ownership, must conform to state policies and the NDDOT Design Division's Utilities Accommodation Manual.

2. On all future federal-aid highway projects, on a state highway system in cities, a special provision for regulating the use of the highway right-of-way for the accommodation of utilities shall be incorporated into the project agreement or by separate agreement with the city adopting the provisions of these policies.

3. Future installation of utility facilities within the project limits must be specifically authorized by the governing body of the city or by a designated city official or city employee authorized to do so.

4. The city shall prepare, or have prepared, maps and records showing the size, type, location, and ownership of all underground utility facilities located within the right-of-way. Such maps and records shall be retained by the city for future reference.

5. On all future federal-aid highway projects, the city shall participate in the utility coordination efforts as set forth in state law and the current version of "Coordination and Notification for Utility Relocation, Adjustments, and Reimbursements Policies and Procedures". This includes utility locating and developing relocations plans, schedules, agreements, and certifications for all public and private utilities.

6. Installation of new underground utility facilities or expansion of existing underground facilities, to meet anticipated future requirements within the project limits, shall be done prior to the start of highway construction or, when necessary, installed in conjunction with highway construction operations.

7. The installation of a new lighting system or additions to an existing street lighting system, within the project limits or within the right-of-way of all federal aid projects within the city limits, shall require prior approval of the Department.
   Upon removal of a utility company installed lighting system which had been installed on State highway right-of-way, the State shall be informed as to the date and reason for such removal. This requirement would not apply when the State is involved in the installation of a new system replacing an existing one.

APPENDIX D

UTILITY OCCUPANCY APPLICATION AND PERMIT

For the Utility Occupancy Application and Permit please go to:

www.dot.nd.gov/divisions/design/utilitypermits.htm

APPENDIX E

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION UTILITY PERMIT FEE SCHEDULE

Type of Permit	Fee
For a Crossing	$100.00
For additional crossings on the same permit	$50.00 ea.
For an open cut crossing	$200.00*
For a Longitudinal facility	$200.00 per mile
For Bridge attachments	$100.00**
Down Guys, Push Braces, Soil Borings, Test Wells	$50.00

*Plus costs to review detour layout and signing plans ..... $50.00 minimum

**Plus costs to review location and method of attachment..... $50.00 minimum

Fees with a per mile cost will be based on the total miles the utility encroaches on the right-of-way rounded up to the next whole mile, e.g. If the utility enters and leaves the right-of-way intermittently for a total of 0.1 miles in a distance of X miles, the fee will be based on 1 mile. If the total is1.1 miles the fee will be based on 2 miles, and so on.

An additional fee may be assessed for each inspection required after the first inspection. This fee will be calculated on time plus mileage..... $50.00 minimum.

Above fees will be waived for US Government, State, City, County, Township, or other governmental organizations and Tribal owned facilities.

APPENDIX F

POLICY MEMORANDA

1. Executive Policy II 1-2, “UTILITIES” – Utility Permits and Utility Relocation.

2. Chapter 2, Maintenance Operations Manual – “Use of Highway Right-of-Way for Legal Drains.”

3. Chapter 2, Maintenance Operations Manual –“Seismographic Investigation on Highway Right-of-Way.”

4. Design Manual, Section III-08.04 – Construction of Utility Facilities within 100 ft. of the Centerline of State Highways.

5. Design Manual, Section III-19 – Monitoring Signing and Marking in Work Areas.

6. Planning and Programming Division – Installation of Lighting Facilities on State Highways.

7. Design Manual, Section III-16 – Partially Controlled Access Highways.

APPENDIX G

DISTRICT OFFICE INFORMATION AND MAPS

Information and processes regarding the NDDOT Utility Permit, who the District contact person is, and the Permit form that needs to be completed are available on the following website:

www.dot.nd.gov/divisions/design/utilitypermits.htm

APPENDIX H

ACCESS FOR CONSTRUCTING AND/OR SERVICING UTILITIES

In general, utilities are to be located and designed in such a manner that they can be constructed and/or serviced without direct access from the through roadways or connecting ramps. Such direct access shall not be permitted except for special cases where alternate locations and/or means of access are unavailable or impractical due to terrain and/or environmental constraints, and such use will not adversely affect safety or damage the state's facility. Where direct access is requested, a permit must be obtained from the highway agency.

Access for construction and/or servicing a utility along or across a freeway should be limited to access via (a) frontage roads where provided, (b) nearby or adjacent public roads and streets, or (c) trails along or near the highway right-of-way line, connecting only to an intersecting road, from any one or all of which entry may be made to the outer portion of the freeway right-of-way. Subject to Section 111 of Title 23, U.S. Code, a locked gate along the freeway fence may be utilized to meet periodic service access needs. Where a gate is allowed, it will be documented by an approved permit which will include adequate provision against unauthorized use.

In those special cases where utility supports, manholes, or other appurtenances are located in medians, interchange areas, or otherwise inaccessible portions of freeway right-of-way, access to them from through-traffic roadways or ramps may be permitted when other alternatives do not exist. Such access shall be by permit setting forth the conditions for policing and other controls to protect highway users.

Entry to the median area should be restricted where possible to nearby grade separation structures, stream channel crossings, or other suitable locations not involving direct access from through roadways or ramps.
Where utilities are located outside the control of access line and where such utilities may require maintenance from within the freeway right-of-way, a permit must be obtained from the highway agency.

All permits will include adequate provisions for control of access to the utility work zone, direction of traffic, and protection of workers and the traveling public.
Advance arrangements should also be made between the utility and the highway agency for emergency maintenance procedures.

APPENDIX I

UTILITY PERMIT CANCELLATION NOTICE

When utility companies remove or abandon their facilities, they must notify the respective North Dakota Department of Transportation District Engineers.

This form may be found at:

www.dot.nd.gov/divisions/design/utilitypermits.htm