OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF REAL ESTATE

DATE:    July 1, 2015

TO:      Users of the Real Estate Manual (Permits)

FROM:    Wendi Snyder, Utility & Railroad Program Manager

RE:      Changes and Updates to the Real Estate Manual

___________________________________________________________________

The only current and accurate source of ODOT’s Real Estate Manual is on the Office of Real Estate’s website. This site is located at: http://www.dot.state.oh.us/real. Desired information can be accessed by scrolling down the left column and selecting “Manuals”. Specific information can be selected by clicking on the desired section.

The Real Estate Manual is a “living document” as procedure will evolve and change. Individuals or firms providing various services to the Office of Real Estate (e.g. negotiations, titles, appraisal, appraisal review, relocation, relocation review, closing, property management, railroad coordination utility relocation and permit application) must perform these services in compliance with current published policies and procedures. Individuals utilizing a hard copy version of the manual, without accessing the website for updates, risk providing non-compliant services to the Office of Real Estate. Therefore, all users must be aware of the changes as various sections of the manual are updated.

ODOT will provide notice of manual changes on the Design Reference Resource Center (DRRC) web page. Users of the manual can access this page and subscribe to be made aware of manual changes via e-mail notification. Then, when changes to the manual occur, ODOT will provide direct notice to the subscriber. This page can be accessed at http://www.dot.state.oh.us/DRRC. Scroll down to “Real Estate Policies and procedures Manual” and select the desired section for updates, or enter your e-mail address to subscribe for changes. It is the user’s responsibility to maintain their most current e-mail address on the DRRC notification system. The DRRC web site is updated four times a year.

The Office of Real Estate may also provide additional guidance to its procedures by Inter-Office Communications (IOC’s). These communications will be made a part of the Real Estate Manual and will be found in the Addenda of each section of the manual. Individuals having questions pertaining specifically to the 8100 section may contact me at 614 728-8062.
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8101  POLICY FOR ACCOMMODATING UTILITY USE OF HIGHWAY RIGHT OF WAY

8101.01  Introduction

The Ohio Department of Transportation’s (ODOT) primary function is to build and maintain safe and efficient roadway and bridge systems that serve all needs of Ohio’s and the nation’s highway transportation users. Once built, it is ODOT’s responsibility to control and maintain the rights of way under its jurisdiction to preserve the integrity, operational safety and function of the highway and bridge facilities. The manner in which utilities cross or otherwise occupy highway rights of way can materially affect the appearance, safe operations and maintenance of the highway, thus, it is necessary that such use and occupancy be reasonably regulated. ODOT’s authority to control all use of its right of way by utilities is done by permit as provided under Section 5515 of the Ohio Revised Code.

8101.02  Policy

The policy which sets all permit installation standards and gives ODOT its ability to achieve all levels of responsibility comes from ODOT’s Engineering Office’s specifications and similar regulations that come from the Federal Highway Administration (FHWA) and the American Association of State Highway & Transportation Officials (AASHTO). The purpose is to set forth the conditions under which utility facilities may be accommodated in and on state highway rights of way. It is the intent of this policy to permit use of state highway rights of way consistent with preservation of the highway investment, safety to the highway user, highway maintenance requirements, proposed future highway improvements and environmental considerations. This policy provides for uniform practices throughout the State for the accommodation of utilities and recognizes the need for special consideration of unusual or hardship situations.

Design of the elements used for utility crossings or occupancies shall conform to the requirements contained herein. But, where such State, Local and Industry design requirements are higher than the treatments and design requirements specified, the higher standards shall be used. This policy may be modified as conditions dictate for servicing rest areas, weigh stations, or facilities required for operation of the state highway.
8101.03 Scope and Application

This policy applies to all utilities, as defined in this section, which are constructed, adjusted or relocated in, on or across rights of way under the jurisdiction of ODOT. This policy also applies to privately owned service lines that are devoted exclusively to supplying the utility owner or a private facility but not the public.

It is also important to note that this policy does not supersede specific permits or agreements previously issued or entered into with ODOT for the occupancy of highway rights of way by specific facilities nor does it supersede specific requirements of other governmental agencies or bodies. For clarification, if there is an installation in place under permit and the new permit request is not associated with a highway construction project and would cause a conflict with that existing installation, the requested permit cannot be issued unless the existing permit holder is compensated for the relocation by the agency or individual that is requesting the new permit.

As previously outlined, the provisions of this policy are based on the current editions of the American Association of State Highway & Transportation Officials (AASHTO) publication entitled “A Policy on the Accommodation of Utilities Within Freeway Right-of-Way” and 23 CFR 645, Sub-part “B” Accommodation of Utilities. (Refer to the FHWA web site at www.fhwa.dot.gov.)

8102 UTILITY PERMITS

8102.01 General Legislative Guidance

Ohio Revised Code Sections 5515.01 and 5515.02 govern the use and occupancy of highway rights of way under the jurisdiction of the Ohio Department of Transportation (ODOT). ORC 5515.01 addresses permit authority, where ORC 5515.02 is the counterpart covering removal of obstructions. These two Sections of the Code have been designed to be complimentary in nature in regarding the use and management of highway rights of way. Utility owners, public or private, must obtain permits to use, cross or occupy existing rights of way, including the providing of service to ODOT facilities (rest areas or weigh stations) or other permitted facilities (cellular towers or environmental monitoring/mitigation.
equipment). In addition, utilities can annually apply and receive a permit to perform spraying, cutting, trimming or removal of brush or trees on State highway rights of way or a General License for Maintenance Purposes. Permits also need to be issued for utility relocation work on active highway projects where local jurisdiction over the roadway does not take precedence. Refer to the ODOT website, [www.dot.state.oh.us](http://www.dot.state.oh.us), Division of Engineering and Standard Procedure 122-001 (SP)

Denial of permits is based upon Federal and State Law and State Policy. If a permit denial involves an agricultural area where the utility would be required to locate on agricultural land and 23 CFR 645, Sub-part “B”, is cited as a basis for the permit denial, an evaluation will be done in accordance with the criteria stated in 23 CFR. Other aspects of the permit denial are outlined in Section 8102.04, “E”.

### 8102.02 Municipality Issuance of a Permit

Issuance of permits by ODOT shall apply only to State and Federal highways outside municipal corporations or, before a municipality issues a permit for those portions of State and Federal highways that have a Limited Access (L/A) right of way designation and are within a municipality, the application must be reviewed and approved by the appropriate ODOT District Office. Further explanation of the permit approval associated with L/A installation requests, both within and outside of municipalities, is covered under Section 8103.03.

On all Federal aid and State highway construction projects involving the State highway system within municipalities, the District Utility Coordinator shall monitor and assure that the municipality conforms to one of the following methods of controlling the accommodation of utilities, both during and following completion of the active project.

#### A. Policy

The policies of the municipality for accommodating utilities on state streets and highways shall be approved by ODOT and the FHWA.
B. Municipality’s Responsibility

The municipality shall formally adopt the ODOT “Policy for Accommodation of Utilities” and designate a municipal representative for issuing permits for utility accommodation on the State highway involved.

C. Special Provisions Legislation

A special provision for the State to regulate the use of the State highway rights of way for accommodation of utilities shall be incorporated into the enabling legislation for the project.

8102.03 Responsibility for ODOT Permit Review and Approval

The District Permit Technician shall be responsible for:

A. Receiving

Receiving applications for permits. (MR 505 Application Form)

B. Assuring

Assuring the review of the permit application, plan and supplemental information is performed by all District offices, as needed, to insure there is conformity to all applicable local, state and federal regulations.

C. Inspecting

Once approved, personally inspecting construction of the utility installation to ensure conformity to the permit installation requirements or work with the District’s County Office, in which the installation is taking place, to have such inspection work performed.

D. Records

Maintaining records of all applications and permits.
8100 Permitting Process For Utility Accommodation of Highway Right of Way

8102.04 District Deputy Director or Designee Functions

A. Permit Reception

Receiving all permit application information from the District Permit Technician, including the Technician’s recommendation for approval or denial.

B. Adjustments

Providing any adjustments, if needed.

C. Approving

Approving the issuance of the permit. (MR 509 Permit)

The Utility or permit applicant shall be responsible for having a copy of the approved permit at the job site at all times and make it available to appropriate ODOT and/or law enforcement personnel upon request.

8102.05 General Provisions Applicable To All Permits

The following list of information is in place to provide guidance on how the permit applicant is to perform the work associated with the utility installation and how, if needed, the permit would be revoked.

A. Maintenance of Traffic Plan

The utility is responsible for the development and design of a Maintenance of Traffic Plan any time work is proposed on the highway right of way. The utility shall also be responsible for the implementation of the plan and the use of necessary traffic control devices or personnel in accordance with the approved plan. Furthermore, the traffic control plan and the use of traffic control devices must be in compliance with the Ohio Manual on Uniform Traffic Devices.
B. Traffic Control Responsibility

Under the Maintenance of Traffic Plan, the permit request must address factors which can also have an impact on the flow of traffic and safety within the permit work zone. Consideration must be given to the applicability of lane closures, maintaining two way traffic at all times and the use of uniformed patrol or other personnel to assist with the control of traffic.

All open trenches must be plated, temporarily backfilled or protected during hours of no construction in a manner that will not impede the plowing of snow or the safe flow of traffic.

Finally, work schedules must be addressed. It may be prudent or necessary to restrict work to off peak hours or take into consideration, such concerns as rush hour traffic, local festivals, shift changes for companies, school schedules or holidays.

C. Conditions of the Permit

1. Except as authorized under the permit, no excavation shall be made or obstacles placed within the limits of the highway in such a manner as to interfere with travel over the road

2. If any grading or other work done under the permit interferes with the drainage of the highway in any manner, catch basins and outlets shall be constructed to properly handle the highway drainage.

3. All the work contemplated under the permit shall be done under the supervision and to satisfaction of ODOT and the entire expense shall be borne by the party to whom the permit is issued.

4. Upon completion of the work under the permit, the highway is to be left clear of all rubbish, excess materials, temporary structures or equipment. In addition, all parts of the highway right of way is to be restored to a condition which is equal to, or better than, that which originally existed.
5. The permit applicant will abide by current State and/or local laws pertaining to storm water pollution prevention and/or erosion control.

6. The right is reserved by the Department to appoint an inspector who shall represent the interests of the State during the installation of the facility. Any compensation arranged for such inspection service shall be paid wholly by the permit holder.

7. Prior to any excavation in the highway right of way, the permit holder must contact the Ohio Utilities Protection Service (OUPS) and the Oil and Gas Producers Underground Protection Service (OGPUPS) and request all existing underground utility facilities be marked.

8. The acceptance of a permit, or the performance of any work under the permit, constitutes an agreement between ODOT and the party to whom the permit is granted. Compliance with all conditions and restrictions included with the permit is mandatory.

D. Ancillary Conditions Under the Permit

1. At the discretion of the District Deputy Director, a Performance Bond may be a prerequisite, as outlined in Section 8103.02 “E”, to the issuance of a permit.

2. The issuance of a permit is not a substitute for satisfying the rights of any other party who may have an interest in the underlying fee.

3. The party to whom the permit is issued shall be responsible for all damages to persons or property due to, or resulting from, any work performed under the permit.

4. The ODOT policy on open cuts of existing pavement is that the installation of underground facilities by open cutting pavement will not be considered unless it is demonstrated that there is no reasonable alternate method available. Casing, pipe or conduit
crossings of the highway shall be installed under the conditions outlined in Section 8106.06 and 8106.07 by auguring, driving, boring, jacking or tunneling without disturbing the pavement or paved shoulders. Since the open cutting of pavement is primarily a roadway maintenance concern, as well as a safety issue, any request of this nature must be clearly justified by addressing construction, traffic control and restoration issues. Approval has to be issued by Central Office Utilities.

5. When highway improvement contracts are awarded by ODOT at or near the area covered by the permit, the party to whom the permit is issued shall cooperate with the highway contractor.

E. Conditions That Would Cause Revoking of the Permit

1. If the party to whom the permit is issued does anything contrary to the orders of the District Deputy Director and, after due notice, fails to correct the work as ordered, ODOT may, with or without notice, correct such work or remove such structure or material, and the party whom the permit is issued to shall reimburse ODOT for any expenses incurred in correcting the work or removing the structure or materials.

2. At any time, a permit may be revoked or annulled by the District Deputy Director for noncompliance with any of the FHWA or Department conditions, restrictions or regulations.

3. The granting of a permit does not, in any way, abridge the jurisdiction of the Director of Transportation over State highways. If, during any future work benefiting the traveling public, it becomes necessary for the Director to order removal, reconstruction, relocation or repair of utility facilities or work performed under the permit, the removal, reconstruction, relocation or repair shall be wholly at the expense of the utility and be made as determined by the Director.
8102.06 When Permits Are Required

All “third party” activities that affect the Department’s right of way, in any manner, require a permit from the District in which the activity is taking place and the permit is needed for both temporary and permanent activities associated with the utility installations. The District Permit Technician has responsibility for working with the permit applicant to assure all ODOT requirements are met and/or adhered to. The vast majority of permit requests come from utility companies and involve the following activity:

A. Underground Installations

Utilities are required to obtain permits from ODOT for the installation, removal or maintenance of temporary or permanent pipelines, conduits, wiring or other underground structures. The permit involves installations that either cross or run longitudinally within the road right of way.

B. Overhead Installations

Utilities are required to obtain permits from ODOT for the installation, removal or maintenance of temporary or permanent poles or other structures that provide aerial installation of utility facilities. The permit involves installations that either cross or run longitudinally within the road right of way.

The District Permit Technician shall work with the utility and District engineers to assure: the underground installation is at a proper depth and aerial installations provide the proper clearance; the installation avoids any conflicts with existing utility underground or aerial facilities, utility structures that support aerial installations, or ODOT structures; if governed, both underground and aerial utility facilities meet all industry and federal regulations; Maintenance of Traffic (MOT) requirements are met while the utility work is being performed; and all other Department and FHWA rules and regulations are met.
8102.07 Right of Way Designation That Affects the Permit Process

The permit approval process is governed by how FHWA or the Department has established the designation and use of the highway right of way. Depending on how the flow of vehicular traffic is to be controlled, the highway right of way is either Limited Access or Non-Limited Access. Permits are approved in the following manner based on how the highway right of way is defined:

A. Limited Access Highways

All FHWA interstate highway facilities are Limited Access and the Department has “interstate look alike” roadway systems that are also designated as Limited Access. For those L/A types of highways where the request for utility installation is being submitted, the permit approval process, as outlined in Section 8102.08, has to be used.

B. Non-Limited Access Highways

Most all of the Department’s highway system is designated as Non-Limited Access and the vast majority of permit requests are associated with the use of that type of highway right of way. For all non-L/A right of way, the permit approval is provided by the District leadership.

8102.08 Exceptions to Normal Permit Requirements

There are situations where the permit process is adjusted to meet the needs of those situations and/or the efficiency of the utility work that needs to be provided.

A. Emergency Work

There are times when emergency situations cause damage to utility facilities located in the highway right of way and work needs to be performed immediately to repair the damage. The type of work being performed is normally handled under the Department’s permitting process and could not be started until the permit is approved. However, because
the affected utility facilities need immediate fix, the utility can perform the work and a permit does not have to be in hand at the time.

A permit is not required for work considered emergency maintenance of utility facilities when damaged by a vehicle, weather related causes or other uncontrolled incident. For all emergency work performed on all highway rights of way, by or for the utility, the utility is responsible for installing and maintaining traffic control devices in accordance with the provisions of the Ohio Manual on Uniform Traffic Control Devices and immediately notifying the appropriate District office, County Manager’s Office or law enforcement authority as soon as possible. In all cases, the emergency work needs to be performed in a prudent manner and a permit must be issued afterwards to address the situation which occurred.

B. Utility Maintenance License

All utility companies perform day-to-day maintenance activity to assure their systems provide good and efficient service to their customers. The Department, in order to join with the utilities in supporting their customer service initiatives, has a **General License for Maintenance Purposes** document the utility can obtain from the District which allows them to perform maintenance work on highway right of way installations that were initially provided to them by individual permits.

ODOT’s Maintenance Administration Manual defines the word maintenance “to preserve or keep in condition”. By way of the General License for Maintenance Purposes, ODOT describes maintenance as upkeep or replacement of existing permitted facilities that will be as close as possible to its original constructed condition or its subsequently improved condition. In accordance with this intent, maintenance work performed under the license shall consist of the following:

1. Any work done to repair, replace or maintain existing utility facilities within state right of way that does NOT involve pavement work or is NOT located within Limited Access right of way. The work must be done within the same footprint as the original installation.
Utility work that is not covered by the license is as follows:

1. Maintenance work done that requires boring under pavement, open cuts in the pavement and pavement milling will require individual right of way use permits and cannot be done under the license.

2. Maintenance work done in areas of Limited Access right of way will require individual right of way use permits and cannot be done under the license.

3. Maintenance work done outside of the footprint of the original installation, but still within road right of way, will require individual right of way use permits and cannot be done under the license.

4. Any work associated with the installation of additional utility facilities within the state right of way will require individual right of way use permits and cannot be done under the license.

The license covers all maintenance activity and individual permits are not required. However, the utility must notify the District Permit Technician and District Transportation Administrator on all maintenance work that will be performed and all of the work activity must meet the requirements that are generally outlined in a permit. The license remains in effect until ODOT or the utility company make the decision to cancel or revoke the license.

C. Tree and Brush Removal, etc.

The utility shall apply for and receive an annual permit that will cover all future spraying, cutting, trimming or removal of brush or trees on State highway rights of way. After the permit is issued, the utility shall notify the District Permit Technician in advance of each time these activities are scheduled to be performed. The work shall be performed in accordance with the provisions incorporated into the permit.
8102.09  Permit Approval Process for use of Limited Access Highway Right of Way

The protection of Limited Access highway right of way, both inside and out of a municipal corporation, is an important requirement that comes from both the FHWA and the Department. However, because of the nature of utility installations, both aerial and underground, and the amount of L/A highway that the Department has, there are numerous times when the utility requests a permit for a temporary or permanent installation that needs to occupy our L/A. Most of those permit requests deal with a crossing but there are times where a longitudinal utility installation is involved.

To maintain efficiency of the permitting process, the District will provide permit approval for all L/A crossings. If the permit request is for a longitudinal installation, for those that are of five hundred feet (500 ft.) or less, approval will come from the District. If the longitudinal installation request is in excess of five hundred feet (500 ft.), the District Permit Technician must submit that request to Central Office Utilities for review of all installation requirements and why such a request is being made. Based on all of that information, approval of the permit must come from Central Office Utilities.

L/A requests for Central Office Utilities review needs to include the District’s recommendation for approval or rejection and comments from the District Permit Technician which are pertinent to the review. Following Central Office Utilities review of the request, the District Permit Technician will be notified of comments, approval or rejection. When required, Central Office Utilities will submit requests to the FHWA for their review and approval.

8102.10  Providing Service Access to Utilities

A.  Utility Service in L/A

Access for servicing a utility, located along or across an L/A highway, shall normally be restricted to private easements, frontage roads or nearby adjacent public roads or streets.
8100 Permitting Process For Utility Accommodation of Highway Right of Way

B. Medians or L/A Interchange Locations for Utility Servicing

If permitted, where utility facilities are located in medians or interchange areas of L/A highways, access from through traffic roadways or ramps will be allowed only by special permits issued by the District Deputy Director to the utility owner. The permit will set forth the conditions for traffic control, highway restoration and other restrictions to protect the highway users.

8103 PERMIT APPLICATION PROCEDURE

8103.01 Permit Application Submission Requirements

All applications for permits shall be submitted by the utility to the District Permit Technician in the form and number as prescribed in Standard Procedure No. 122-001 (SP). All plans and any supplemental information which are attached to the utility permit application shall be reviewed and approval obtained by the District Permit Technician or, if the utility installation is associated with a Department’s highway/bridge construction project, the District Utility Coordinator will work with the District Permit Technician and the utility on the permit application procedure.

A. Permit Application Associated with a Highway/Bridge Construction Project

When the utility company’s permit application is associated with a highway/bridge construction project, the District Utility Coordinator will review the request and the utility must provide assurance that the proposed installation is in conformance with the design, safety and construction requirements of the highway/bridge.

While the Utility Coordinator is responsible for obtaining the review and approval of the utility’s installation plan and permit, the utility is responsible for assuring they provide a proper design and installation process that will work in conjunction with the project construction process and dating of the work being performed. Therefore, it is imperative that the permit plan provides sufficient detail in order to properly evaluate the
impact of the proposed utility installation during the highway/bridge construction. The District Permit Technician will handle the process for getting the permit approved.

Field reviews and inspections should be performed, as needed, by either the District Utility Coordinator or appropriate inspection designee. A site inspection or review, prior to issuance of the permit, will verify the accuracy of the proposed permit plan in regards to the highway design and topographic features. During construction, an inspection can address issues pertaining to maintenance of traffic and unexpected field conditions. From a standpoint of safety and verification of the conditions included in the permit, this is the most critical inspection made.

An inspection made following completion of the project construction allows for a final verification of compliance with all permit conditions and timely implementation of any necessary corrective action.

8103.02 Permit Application Information for all L/A or Non-L/A Permit Requests

Regardless of whether the permit application for a crossing or longitudinal utility installation in L/A or non-L/A right of way is being submitted by the utility during a highway construction project or for an installation in the existing right of way, all of the information needed from the utility for review and approval is the same. The utility shall furnish the following:

A. General Information

1. One copy of the permit plan and permit application.

2. County, Route and Section of the highway location.

3. Right of way plan or plan/profile sheet of the highway covering the utility request

4. If, it is a construction project, the Federal and State project numbers and PID number of the highway project should be referenced
B. Permit Plan Information

1. Centerline stationing of any highway crossing.

2. A profile view and/or elevation points covering areas of possible conflict for both aerial and/or underground utility installations.

3. The type of materials that will be used for the installation must be specified. For underground installations, this will include the type and size of pipe, conduit, cable, etc.. For aerial installations, the type, size and height of poles shall be provided.

4. Provide plans for the proposed installation, including profiles and representative cross sections, relating the installation to the highway stationing. Depending on the proposal, cross sections may not be required for an aerial installation.

5. For underground installations, a profile shall be provided to address points of possible conflict with other subsurface features.

C. Construction

1. Method of installation to be used.

2. State the length of time necessary to install the facilities.

3. A plan must be provided showing details of any necessary structure foundation for aerial installations.

4. If applicable, construction details for both excavation and backfilling of trenches shall be provided for all underground installations.

5. If the installation affects any portion of the highway slopes, an explanation will be required as to the method and materials to be used for protecting the slope from erosion. When sheeting is used, the material details and construction method must be provided.
6. All highway right of way which is disturbed by the proposed construction must be restored to the original or better condition.

7. In some instances, the utility installation may affect trees or other types of mature growth. Where this occurs, selective tree removal or necessary tree trimming will be permitted. In these situations, plans must be provided showing the selective removal and/or trimming required along with schematic plan depicting the necessary replacement plants to be installed. However, it must be clearly documented in their plan that neither the facility nor the construction of the facility will be detrimental to the natural growth in the area of the proposed utility installation.

8. The utility owner shall place permanent markers (i.e. fluorescent markers, fluorescent pedestals) identifying the location of the underground utilities to avoid damage to the facility during ODOT’s seasonal maintenance activity. Non-metallic underground lines shall be accompanied by a trace wire, metallic tape or other method to locate and mark the underground facility.

9. A review of necessary highway restoration processes must be made. This review shall include the restoration of drainage, fence, guardrail, right of way and the pavement/shoulder areas. In conjunction, consideration must also be given to the possible use of specific restoration materials such as permanent sheeting/shoring or control density backfill. Furthermore, an evaluation shall be made as to the use of full time inspection and/or the bonding of the applicant or the applicant’s contractor.

D. Maintenance of Traffic

1. A maintenance of Traffic Plan must be provided, including points of access for both the utility construction phase and future maintenance of the facility.
E. Bond Protection

1. If the permit applicant is not a utility that submits a significant number of requests for use of the highway right of way or there is installation concerns regardless of what utility is requesting the permit, the District can request the applicant provide a bond to cover any damage that may occur as a result of the installation.

2. The bond amount will be established based on the physical characteristics of the roadway or bridge structure that has the potential for damage.

3. The bond is to be in place for five (5) years from the completion date of the installation and, if the permit holder does not make any needed repairs, the funds will be used to cover any costs the Department uses to make those repairs.

4. If the utility installation covers more than one District, each affected District Permit Technician will work with Central Office Utilities in putting together a “Universal Bond” that will cover all sites where the utility is to be installed.

8103.03 Longitudinal Occupancy of Limited Access Highways

It is ODOT policy that the longitudinal use of limited access rights of way by utilities be minimized, not be allowed within the median area of the highway and be limited to transmission or trunk line facilities. In conjunction, the approval/disapproval authority is shared with the District Deputy Director/Designee and Central Office Utilities. If, as outlined in Section 8102.08, the permit request is for a longitudinal installation of five hundred feet (500 ft.) or less, the District Deputy Director/Designee can provide approval. If the installation is more than five hundred feet (500 ft.), approval must come from Central Office Utilities.

Prior to the issuance of the permit, the following information must be submitted to Central Office Utilities for review and approval:
1. Utility permits involving more than 500 foot longitudinal use of interstate rights of way or other limited access highways.

2. Requests to use or occupy areas of scenic enhancement.

3. All requests involving exceptions to approved utility permit policy.

The reasons for these restrictions are critical to the Department’s responsibilities to the traveling public: to maintain the safety features of the highway; to preserve the integrity of the highway; and to safeguard the highway investment. Therefore, a utility request for longitudinal occupancy in the L/A must be documented to the extent that such installation will not impair the design, construction, operation or maintenance of the highway or interfere with the free and safe flow of traffic and that it is in the public interest to locate the utility facility on limited access highway rights of way. Any permit application for longitudinal occupancy of limited access highway must be clearly justified. All utility requests of this nature shall include or address all of the items outlined in Section 8103.02 plus the following minimum items as part of the review process by the District or Central Office Utilities:

A. General Information

1. Provide the County, Route and Section for both the original highway, as it currently exists, or any projects encompassing a significant upgrade of the highway (include PID if applicable) and Federal and State project numbers.

2. Explain the necessity of the installation, as well as, how this proposed installation fits into the overall needs of the applicant.

3. Provide information as to why the utility was not able to obtain an easement outside of the L/A for the longitudinal installation.

4. The type of materials that will be used for the installation must be specified. For underground installations, this will include the type of pipe, conduit, cable, etc. Aerial installations shall be limited to self-supporting single pole construction.
5. Scenic areas must be addressed in accordance with the ODOT Utilities Manual.

B. Permit Plan and Justification

1. For the area covered by the request, provide right of way plans and/or plan and profile sheets for both the original highway project and any subsequent project encompassing a significant upgrade of the highway. No utility facilities will be permitted within the area between the edge of pavement and the outer limits of highway signing.

2. Alternate routes to the proposed installation must be explored. In conjunction with each alternate route, the following must be provided: schematic plan showing the alignment of each alternate route, right of way costs, construction costs, restoration costs and objections to each alternate route from environmental, construction and economic perspectives.

3. If the disapproval of the use of the L/A right of way would result in the permanent loss of productive agricultural land, or the permanent loss of the productivity of agricultural land, the utility must provide information on the direct and indirect economic effects of this loss.

4. The District shall make a determination as to whether the proposed installation will affect the design, construction, integrity or operational characteristics of the L/A highway. The proposed installation shall also be reviewed in regards to the possibility of future expansion, relocation or upgrading of the highway, a determination made as to the feasibility of the proposed utility installation and the effect on traffic safety.

5. If the L/A highway fence will be disturbed during the installation of the facility, two conditions must be met. During the installation of the facility, the applicant will install temporary fence, guardrail and/or median barrier between the work area and the through traffic.
lanes or ramps. Upon completion of the installation, the highway fence must be restored to the original or better condition.

6. No facilities will be permitted on slopes which are steeper than a 4 to 1 ratio.

7. All underground facilities will have an installation depth as outlined in Section 8106.07.

8. When available, utilities must be located along frontage or access roads in order to provide service without access from through traffic roadways or ramps.

C. Maintenance of Traffic – Access – Restoration

1. Access to the proposed facility during construction will not be permitted from the through traffic lanes or ramps of the limited access highway.

2. No parking of vehicles nor storage of equipment or materials will be permitted on the limited access highway.

D. Operational Conditions

1. No utility service line connections will be permitted to the installation where located within the interstate or interstate look alike limited access right of way.

2. Access to the underground utility line, utility supports, manholes, or other appurtenances for future maintenance will not be permitted from the through traffic lanes or ramps of the limited access facility. In this regard, if the maintenance work is extremely difficult and costly, it may be necessary to restrict future access to the facility until a permit is issued by the District Deputy Director which would address maintenance of the facility and the associated points of access which may include the use of through traffic roadways or ramps.
8104 PRIVATE LINES

8104.01 General

On limited access highways, applications for the longitudinal placement of private lines must conform to the provisions of this manual and provisions of 23 CFR 1.23 (C). This section of the CFR reserves the right for such approval to the Administrator of the FHWA if it is determined that such occupancy, use or reservation is in the public interest, will not impair the highway or interfere with the free and safe flow of traffic. All requests of this nature must be submitted to Central Office Utilities for review and processing with FHWA.

8104.02 Wetlands

Installation of privately owned lines or conduits is prohibited on right of way used for the purpose of draining adjacent wetlands onto highway right of way. This prohibition is consistent with the Federal executive order on Protection of Wetlands.

8105 GENERAL ACCOMMODATION GUIDELINES

The following are general guidelines for permitting the location and design of all utility installations within highway rights of way. When determining right of way requirements for a highway project, utility relocation must be taken into consideration, along with construction requirements, clear roadside policy and other safety matters.

8105.01 Location

A. Basis for Location

Utilities shall be located to minimize adjustments due to future highway improvements and to permit servicing or upgrading of utility facilities with minimum interference to highway traffic.
B. **Longitudinal Location**

Longitudinal installations shall be located on a uniform alignment near the right of way line in order to provide a safe environment for traffic operations and preserve space for future highway improvements or other utility installations.

Longitudinal underground utility facilities are prohibited within the area designated for the placement of highway signs and mailboxes unless the utility facility is constructed of material which will withstand penetration by support posts and is installed with a minimum cover of four (4) feet.

C. **Crossing Angle**

To the extent feasible and practicable, utility lines crossing the highway shall cross on a line generally normal to the highway alignment. This means the crossing shall be established as close to 90 degrees as possible.

D. **Roadside Policy**

The horizontal and vertical location of utilities within highway rights of way need, as best as possible, to conform to the Department’s clear roadside policy. The purpose of such policy is to provide drivers of vehicles, which leave the traveled portion of the roadway, a reasonable opportunity to stop safely or otherwise regain control of the vehicle without hitting obstruction. The clear zone may vary with the type of highway, terrain traversed, road geometrics, and operating conditions. The location of above ground utility facilities shall be consistent with the clearances applicable to all roadside obstacles for the type of highway and prevalent conditions.

E. **Bridge Use**

Where other locations are not feasible, bridges may be utilized to support utility facilities as provided in Section 8103.01, “A” and Section 8108.02 of this manual.
F. Integrity & Visual Protection

In order to preserve and protect the integrity and visual quality of the highway and the utility, consideration shall be given to measures reflecting sound engineering principles, economic factors, maintenance efficiency and safety.

8105.02 Design

A. Responsibilities

The utility is responsible for the design, installation, operation and maintenance of the facility to be installed within the highway rights of way or attached to a highway structure. The Department is responsible for review and approval of the utility installation plan with respect to the location of the utility to be installed or the manner of attachment to a highway structure. This includes the measures to be taken to preserve the safe and free flow of traffic, structural integrity of the roadway or highway structure, ease of highway maintenance, appearance of the highway and the integrity of the utility facility during highway construction.

B. Installation Requirements

Utility installations along, over or under highway rights of way and utility attachments to highway structures shall, as a minimum, meet the following requirements and all subsequent amendments or revisions.

1. All utility installations shall be installed and maintained in accordance with current rules and regulations of the Ohio Department of Transportation.

2. Electric power and communication facilities shall conform to the current provisions on the National Electrical Safety Code and Occupational Safety and Health Administration.

3. Pressurized water lines and sewer lines shall be installed in accordance with Section 8106 and shall conform to the current...
conditions as outlined in the Ohio Department of Transportation Construction and Material Specifications and EPA standards.

4. Pressurized oil and gas pipe lines shall conform to the current sections of ANSI Standard Code for Pressure Piping and/or applicable Federal, State, Local or Industry codes. A clearer description for these types of pipe line installations is covered under Section 8107.06 “D” & “E”.

C. Visual Design

The design of ground mounted utility facilities must offer desirable characteristics to the appearance of the highway and the environment. Effort shall be made to harmonize or blend the natural and manmade objects, insure continuity of visual form without distracting interruptions and strive for simplicity of design. In all cases, full consideration will be given to sound engineering principles and economic factors.

D. Material Strength

All permanent utility installations along, over or under highway rights of way and attachments to highway structures shall be of durable materials, designed for long service life and relatively free from routine servicing and maintenance.

E. Utility Expansion

On new installations or adjustments of existing utilities, provisions shall be made for known or planned expansion, particularly those facilities located underground or attached to bridges. The expansions shall be planned to minimize hazards and interference with highway traffic when additional facilities are installed at some future date.

F. Trench Installations

Bedding and backing of trenches within highway rights of way shall be in accordance with the provisions of ODOT’s CMS. However, backfilling of
trenches within the pavement or shoulder areas shall be of Low Strength Mortar Backfill Material unless specifically waived by ODOT. The composition of the Low Strength Mortar Backfill Material to be used will be in accordance with ODOT’s specifications.

G. Exception Approval

Exceptions to utility relocation policy must be submitted to Central Office Utilities for evaluation and approval.

H. Open Cutting of Pavement Evaluation

The ODOT policy on open cuts of existing pavement is that the installation of underground facilities by open cutting pavement will not be considered unless it is demonstrated that there is no reasonable alternative method available. Casing, pipe or conduit crossings of the highway shall be installed by auguring, driving, boring, jacking or tunneling without disturbing the pavement or paved shoulder. Since open cutting of pavement is primarily a safety issue, any request of this nature must be clearly justified by addressing utility construction problems, traffic control and restoration issues. Approval would be issued by Central Office Utilities.

8106 UNDERGROUND UTILITY INSTALLATIONS

8106.01 General

The design of underground utility crossings or occupancies of highway rights of way must be varied because of site conditions, type of utility involved, type of highway and degree of access control. Therefore, this policy is considered flexible and may be modified when justified and where special conditions exist. Design of utility facilities shall conform to the requirements contained in this policy. However, local or industry design standards prevail when more stringent. Requests to locate utilities on State highway rights of way must be made in accordance with the provisions of Standard Procedure No. 122-001 (SP). Arrangements for emergency maintenance procedures shall be made in accordance with Section 8102.07, “A” of this manual.
8106.02 Location

Based on the highway’s right of way designation, the permit process must be followed as listed:

A. Limited Access Highways - Longitudinal

As a general policy, if private access to a highway has been extinguished or controlled, longitudinal utility installations will not be permitted. However, in extreme hardship cases or where the public interest will be best served, the Department will consider accommodations of longitudinal utility lines within the rights of way of limited access highways. In each case, it must be demonstrated that the underground installation follows all policy criteria as outlined in Section 8102.08 and Section 8103.03.

B. Limited Access Highways – Crossings

Where private access to a highway has been extinguished or controlled, underground utility crossings are permitted subject to the conditions of this policy. Utilities crossing, as outlined for longitudinal installations, shall be designed in a manner that both construction and future maintenance operations can be performed without using the traveled roadways or ramps to gain access.

C. Non-Limited Access Highways – Longitudinal & Crossing

On non-limited access highways, all underground installations are permitted subject to the conditions outlined in Sections 8105 and 8106. Longitudinal lines may be permitted as long as the installation is located as close to the right of way line as possible. Exceptions may be considered taking into account the Department’s clear roadside policy, with approvals being based upon the merits of the case and the above mentioned Sections. In cases of narrow rights of way and severe terrain features, consideration may be given to locating the utility between the ditch and pavement. In this regard, the utility facility shall be located so that the distance between the edge of the pavement (or paved or stabilized shoulder) and the inside edge of the trench is greater than the depth of the...
trench (see Section 8105.02, “F” for additional restrictions). Buried cable shall not be installed within the shoulder area where lines for highway lighting, illuminated signs or other installations are typically located.

**8106.03 Pipeline Design**

Pipeline installations in ODOT right of way cover a variety of products and the physical characteristics of the pipe, the product being moved by the pipeline and the pressure contained in the pipe varies significantly. ODOT’s permitting process for approving both crossings and longitudinal underground installations of these pipelines must meet the following design guidance.

**A. Material Strength of Crossing Installation**

Utilities crossing under a highway shall be of durable materials designed to meet conditions found at the site and shall be installed to preclude disturbing the roadway when performing maintenance or expansion operations.

**B. Crossing Extensions**

On non-limited access highways, conduits or casings shall extend beyond either the outer edge of the ditch or the embankment slope if a ditch is not present. On limited access highways, conduits or casing shall extend across the full width of the right of way. When the highway is constructed in deep cut, conduit or casing may be terminated beyond the shoulders. Generally, open cutting of the median is prohibited. However, where there is extremely wide medians, traffic lanes at different elevations or other physical conditions that make a continuous bore impractical, opening of the median may be permitted. Since the open cutting of the median is primarily a safety issue, any request must be clearly justified by addressing construction, traffic control and restoration issues. Approval for this type of work needs to be issued by Central Office Utilities.
C. **Installation Protection**

The grade of the crown of the pipeline, conduit, casing or unprotected facility shall be established based on what product is been transferred. Additional depth of cover may be required to meet existing field conditions. In those instances where less than minimum cover is authorized, additional protection of the utility facility may be required.

D. **“Public Utility” Requirements**

A pipeline owned by a Gas Company that is defined as a “Public Utility” and provides natural gas that is fully regulated by the PUCO and sold to the general public must meet these following guidelines:

A gas pipeline of any size or pressure and made of any material (steel, iron, plastic, etc.), generally, will not need to be cased but the company must certify it meets all rules, regulations and pipeline inspection criteria contained in 49 CFR 192 and/or 49 CFR 195. If the pipeline installation is a crossing under an interstate or an interstate look-alike and is less than 12 feet in depth, the company must provide certification that the pipe design meets the “Class 4” requirements of 49 CFR 192 which establishes the thickness of the pipe. If the installation depth is 12 feet or more, the company must meet the “Class 3” design requirements. All other “Class Thickness” requirements associated with longitudinal and crossing installations will be based on the location description outlined in the Federal Code. If the District has some concerns about the physical location of a crossing installation, the “Class Thickness” can be established which meets the District’s concerns. In addition, if the pipeline installation will be located within any fill material around Mechanically Stabilized Earth (MSE) Walls or within two feet of any structure foundation (i.e. bridges, culverts, etc.), the pipeline must be cased. All other installation requirements, as outlined in Section 8106 of the Department’s Utility Manual, must be met.
E. Oil & Gas Company and Interstate/Intrastate Pipeline Company Requirements

A pipeline owned by an Oil & Gas Company or an Interstate/Intrastate Pipeline Company must meet these following guidelines:

A gas and/or petroleum pipeline of any size or pressure and made of any material (steel, iron, plastic, etc.), generally, will not need to be cased but must meet all rules, regulations and pipeline inspection criteria contained in 49 CFR 192 and/or 49 CFR 195. If the pipeline installation is a crossing under an interstate or interstate look-alike and is less than 12 feet in depth, the company must provide certification that the pipe design meets the “Class 4” requirements of 49 CFR 192 which establishes the thickness of the pipe. If the installation depth is 12 feet or more, the company must meet the “Class 3” design requirements. All other “Class Thickness” requirements associated with longitudinal and crossing installations will be based on the location description outlined in the Federal Code. If the District has some concerns about the physical location of a crossing installation, the “Class Thickness” can be established which meets the District’s concerns.

The company’s design plans of the pipeline installation must be certified as meeting 49 CFR 192 and/or 49 CFR 195 regulations with an Ohio Registered Engineer’s review stamp and signature. In addition, if the pipeline installation will be located within any fill material around Mechanically Stabilized Earth (MSE) Walls or within two feet of any structure foundation (i.e. bridges, culverts, etc.), the pipeline must be cased. All other installation requirements, as outlined in Section 8106 of the Department’s Utility Manual, must be met.

If the pipeline company decides, on its own, to provide casing for the installation, the installation plan does not require two design engineering signatures but, as outlined, does require one signature that certifies the pipeline design meets all federal regulations.
F. Federal Criteria

The federal criteria which establishes the pipeline design is part of the gas and petroleum industries’ licensing process and is applied to all pipeline size and material types. All of their installations are required to meet these standards and casing will not be needed unless the installation is close to an MSE wall or any structure. The two foot distance, which will require casing, was established by Central Office Engineering. The District’s ability to adjust Federal Regulation which establishes thickness of the pipeline installation by “Class Level”, is also supported by Central Office Engineering.

8106.04 Casing of Pipelines

Casing of an underground installation of a utility facility is a requirement that will be established by the District based on what product the pipeline is carrying and the physical characteristics of where the installation is being made.

A. Oil, Gas & Petroleum Pipelines

The thickness of pipelines that carry these products is controlled by the federal regulations defined in Section 8106.03 of this manual. Because of the work this industry has done with FHWA and ASSHTO to protect the life expectancy of their pipelines, casing, for the most part, will not be required. However, the Department does require casing if the pipeline is within two feet of MSE walls or structures and, depending on other physical characteristics of where the pipeline is being installed, the District can require casing if it is felt that such an installation has to be made in order to prevent damage to the roadway.

B. Water & Sanitary Sewer Pipelines

Pipelines of these types, particularly those that carry product under pressure, have to be cased. However, there are situations where the utility can provide pipelines of increased thickness and the District can approve such an installation without casing.
8106.05 Additional Guidance for Underground Utility Installations

These following items address design and location requirements for all types of pipeline and conduit installations:

A. Gallery Installation

For pipelines of the extreme importance to public convenience, safety or business operations, galleries may be installed for the purpose of performing repair or replacement of pipelines and conduits. Galleries shall be designed so that most repairs or replacement of these utility facilities can be made without resorting to pulling the entire facility from the gallery. The gallery design shall include one or more entrance shafts of a size suitable for removal of one pipe or conduit section from the gallery. Shafts shall be sealed with a removal cap. Each cap shall have a manhole opening suitable for inspection access.

B. Casing & Gallery Material

Casings and galleries may be constructed of any materials permitted by ODOT’s CMS for use in roadway culverts, and shall be designed to meet all conditions found at the site.

C. Tunnels

Tunnels, if needed, shall be constructed of steel liner plates left in place or other materials acceptable to ODOT. Voids remaining outside of the tunnel lining shall be filled with Portland cement grout. After installing the utility, the tunnel lining shall be filled with approved gravel aggregate or concrete rammed in place. Tunnel ends shall be sealed and provisions may be made for tunnel drainage if an outlet is available.
D. Pressure & Gravity Flow Pipeline Installation Requirements

Pipelines of any type carrying gas or liquid under pressure shall be equipped with valves which, when closed, will isolate the section of the line which includes the portion within the highway right of way. Gravity flow pipelines, such as sanitary sewers, shall be a type suitable for roadway culverts. Joints shall be compression type or an approved equivalent. Manholes should be located on gravity flow lines outside of limited access boundaries and in a position that the facility can be inspected and cleaned without trespass on the right of way.

E. Underground Installation Determination

When a utility has an original position beneath a new highway improvement, a determination needs to be made regarding the need to strengthen or replace that existing facility. The determination shall be based on depth, strength and condition of the existing utility, the type of surrounding soil and the foundation soils. If a fill or surcharge is to be placed above an existing utility, a thorough investigation needs to be made and consideration given to installation of such treatments as a concrete cap, partial encasement, full encasement or replacement of the facility. If the determination indicates that it is feasible to leave an existing utility parallel under the pavement, extension for future service connections shall be made prior to the new pavement being placed.

8106.06 Installations

The following situations related to the status of the right of way and physical characteristics of the installation location establishes how underground installations need to be made:

A. L/A Crossing

When pipelines must cross existing limited access highways, installation shall be made from points outside the limited access right of way. Where extreme cost or hardship exist, areas beyond the back-slope of the side ditch may be used. Whenever feasible, installations shall be made without
using the mainline or connecting ramps and without interfering with the mainline or ramp traffic.

Generally, open cutting the median is prohibited. However, where there is extra wide medians, grades of traffic lanes at different elevations or other physical conditions that make continuous bore impractical, open cutting of the median may be considered. Since the open cutting of the median is primarily a safety issue, any request of this nature must be clearly justified by addressing construction, traffic control and restoration issues. Approval needs to be issued by Central Office Utilities.

B. Embankment or Shallow Cut Installation

When the highway is currently located, or is to be constructed, on embankment or in a shallow cut, casing or galleries shall extend across the full width of the right of way. If significant savings would result, access is not limited, safety is not compromised and ODOT approves, the casing or gallery may be terminated beyond the outer edge of the ditch flow lines, or the embankment slope if a ditch is not provided.

C. Deep Cut Installation

When the highway is currently located, or is to be constructed in a deep cut, casing or galleries shall extend across the roadway to include the effective width of the outside shoulders. Effective width is considered to be the offset distance between the edge of the pavement and the face of the guardrail as provided on the highway project. Overhead structures, either utility or highway, may be considered for the purpose of supporting utilities to span deep cuts when other locations prove difficult and costly.

8106.07 Depth of Installations

The grade of the crown of conduit, casing or uncased pipeline facilities shall be established so that minimum depth of cover will be as follows:

<table>
<thead>
<tr>
<th></th>
<th>Water Lines</th>
<th>Other Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under pavement surfaces</td>
<td>4 Feet</td>
<td>3 Feet</td>
</tr>
</tbody>
</table>
Under sod ditches 3 Feet 3 Feet
Under paved ditch 2 Feet 2 Feet
Under other surfaces 3 Feet 3 Feet

Additional depth of cover may be required to meet existing field conditions. In those instances, where less than minimum cover is authorized, additional protection of the utility facility may be required.

**8107 AERIAL UTILITY INSTALLATIONS**

**8107.01 General**

Guidelines for aerial utility installations in various locations are as follows:

A. **Power & Communication Lines**

For accommodation of power and communication lines on highway rights of way, things will vary with the site conditions, type of line involved, type of highway and degree of access control. Therefore, this is to be considered as a flexible policy which may be modified where special conditions exist. Design of the utility facilities shall conform to the guidelines contained here in this manual, but where local or industry standards are higher, those standards shall prevail.

B. **L/A Installations**

If private access to a highway has been extinguished or controlled, longitudinal lines will not be permitted within the limited access right of way, except as provided in Section 8107.02 “A”. Lines crossing or occupying limited access highways shall be designed in a manner that will permit construction and normal maintenance operations to be performed without using the traveled roadways or ramps to gain access.
C. **Vertical Clearance Determination**

The vertical clearance of overhead lines crossing limited access or non-limited access highway rights of way shall not be less than the minimum required by the National Electric Safety Code. Specific cases may arise where the utility will be requested to furnish clearances over and above those specified by the National Electric Safety Code. The State will determine the location and extent of additional clearance required during highway construction and will make every effort to give ample notification to the utility. A minimum vertical clearance of 16.5 feet will be maintained over all State and Federal highways.

8107.02 **Location**

A. **Longitudinal L/A Installation Determination**

As a general policy, if private access to a highway has been extinguished or controlled (Designated L/A), longitudinal installation of overhead utility lines will not be permitted. However, in extreme hardship cases or where the public interest will be best served, the Department will consider accommodation of longitudinal utility lines within the rights of way of limited access highways. In each case, it must be demonstrated that:

1. The accommodation will not adversely affect the design, construction, operation, maintenance or safety features of the highway.

2. Alternate locations are not available or cannot be implemented at a reasonable cost from the standpoint of providing efficient utility service.

3. The aerial utility installation will not interfere with nor impair the present use or future expansion of the highway.

4. Disapproval of the use of the right of way would result in the permanent loss of productive agriculture land or permanent loss of
productivity of agricultural land. In this case, the utility must provide information on the direct and indirect environmental and economic effects of this loss.

5. The utility facility can be constructed and serviced without access from the through traffic roadways or ramps of the limited access highway.

6. No longitudinal occupancy of the median area will be permitted.

B. L/A and Non-L/A Installation Requirements

On non-limited access highways, longitudinal aerial lines may be permitted subject to the conditions of this policy. Locations of such lines shall be as close to the right of way line as possible. Exceptions will be considered taking into account the Department’s clear roadside policy, with approval being based upon the merits of the request. Adequate support for any exception must accompany the request.

Ground mounted utilities shall be placed as far as practical from the traveled way and be of a design which is compatible with the visual quality of the highway. Guy wires and stub poles are not to be placed between a pole and the traveled way in a manner that encroaches upon the clear zone. Clear zone specifications can be found in volume 1 of the ODOT L & D Manual. In addition, the following basic clearances apply to ground mounted utilities:

1. The minimum lateral clearance between the face of the guardrail and the face of the utility facility will be 5.5 feet for standard post spacing and 3.5 feet for reduced post spacing.

2. Guardrail requirements for fixed objects within the clear zone are waived for speeds less than 40 mph.

3. Where there are curbed sections, utilities need to be located a minimum of 8 feet behind the face of the curb. If this offset is not practical, utilities must be located as far back from the face of the
curb as feasible, with an absolute minimum clearance of 1.5 feet. (Under a resurfacing project, if utility facility locations do not meet these requirements, relocation is only required if the Resurfacing Accident Analysis indicates accidents have been occurring as outlined in the L&D Manual, 106.1). The minimum lateral clearance between a utility facility and the edge of a bike-path shoulder will be based on current AASHTO Standards.

C. Single Pole

Longitudinal installations of overhead lines on highway rights of way shall be limited to single pole type of construction. Joint-use single pole construction is encouraged at locations where more than one utility or type of facility is involved as outlined in Section 8107.05.

8107.03 Overhead Crossings

A. L/A Crossing Design Requirements

Where no crossroad exists, overhead lines crossing a limited access highway shall be designed for support structures to be located outside of the limited access lines. In cases where such spanning of the roadway is not feasible, consideration can be given to placement of the utility beyond the outer edge of the roadway side slope or a conversion to underground facilities.

B. L/A Interchange Installation Evaluation

At interchange areas, supports for overhead utility lines may be permitted within the limited access lines provided it is demonstrated that any other location is extremely difficult or costly and that all of the following conditions are met:

1. The clear zone is maintained with respect to the through traffic lanes of the freeway.

2. The appropriate clear zone from edge of ramp is maintained.
3. Sight distance is not impaired.

4. Conditions of Section 8107.04 and 8107.05 of this manual are met.

C. Crossroad Installation

Where lines parallel a crossroad which is carried over or under a limited access highway, provisions need to be made for utilities to cross the limited access highway parallel with the crossroad in such a manner that the utility can be serviced from the crossroad.

D. Non-L/A Crossing Structure

Along non-limited access highways, structures supporting overhead utility lines crossing highway rights of way may be permitted. These structures shall be located as close as possible to the right of way line and in a manner that will cause the least interference with the normal maintenance of the highway.

8107.04 “Joint-Use” Consideration

In order to minimize the number of utility poles occupying the road right of way, if road right of way space is limited and/or an existing utility’s pole installation can provide space to accommodate a “Joint-Use” installation with the permit applicant, then the permit can only be approved if the “Joint-Use” opportunity is evaluated and, possibly, met.

8108 UTILITY INSTALLATIONS ON HIGHWAY BRIDGES

8108.01 General Requirements for Bridge Attachments

In many cases, attachment of utility facilities to highway bridges is a practical arrangement and will be permitted where found to be in the public interest and in accordance with ODOT policy. However, attaching utility facilities to a highway
bridge can materially affect the bridge, the safe operation of traffic, the efficiency of maintenance and the appearance. Therefore, where it is feasible, cost effective and reasonable to locate utility facilities elsewhere, attachments to highway bridges should be discouraged and avoided. Due to the nature of the utility product being transported, the evaluation of requests for gas line attachments to bridges need to be critically analyzed. When bridge accommodation is a viable course of action, the issues associated with the bridge attachment must be addressed early in the design process. The placement of any utility on a bridge is predicated on justification for the proposed attachment, along with consideration of the disposition of the existing facility during both the bridge demolition and construction phases. In all cases, if a utility is to be installed on a bridge, the request must be reviewed and approved by the District Production Office, the District Utility Coordinator and the appropriate ODOT bridge office.

8108.02 Conditions

Where other locations for utility facilities to span an obstruction prove to be difficult or unreasonably costly, consideration shall be given for attaching the facility to a bridge structure under the following conditions:

A. The utility installation shall be made in a manner that will not inhibit maintenance, reduce vertical clearance or detract from appearance of the structure.

B. None of the structural members in the proposed bridge are to be reduced in section, or the cross section of the super structure revised to other than a normal section, solely for the purpose of accommodating utilities.

C. Conduits to be installed in the sidewalk element must be a least one inch above the construction joint between the bridge slab and sidewalk and spaced to provide a least two inches of clearance between the outside of the conduits.

D. Utilities will not be placed inside of pre-stressed concrete box.
E. Utility attachments to the outside of the bridge will not be permitted unless reasonable alternatives do not exist.

F. All sleeves for utility installations shall extend beyond the approach slab.

G. Gas mains may be supported by bridges provided that the internal operating pressure does not exceed applicable design criteria. In order to isolate the bridge and provide access points for line by-passes, valves must be provided at readily accessible locations within reasonable distance from each end of the bridge.

H. Water mains may be supported by bridges if valves are provided at readily accessible locations within reasonable distance from each end of the bridge. The valves must allow for isolation of the bridge and provide access points for line by-passes. If required, insulation or wrapping should be provided to prevent sweating or freezing.

I. Sanitary sewers will not be installed on bridges unless no reasonable alternative exists.

J. The design of pipeline installations on bridges shall provide for a support that will prevent vibration in the pipeline when traffic crosses the bridge.

K. Power and communications conduits installed on bridges will be equipped with access points at readily accessible locations within reasonable distance from each end of the bridge.

8109 Pipeline Installations in Culverts

8109.01 General Guidelines for Pipeline Installations

A culvert is defined as any buried structure that has a span less than one hundred-twenty inches (120 in.) as measured along the centerline of the roadway. Because a pipeline installation within the culvert can provide efficient and cost effective installation requirements to a utility company, a District often gets a request for such an installation. But, from the Department’s perspective, the
culverts primary function is to handle water drainage in order to protect the roadway. With that said, the Department will provide a permit for the temporary installation of a waterline, based on certain criteria, but will not allow for the installation of any other type of line, i.e. gas, sewer, electric, etc..

8109.02 Temporary Waterline Installation in a Culvert or Road Right of Way

In most cases, in order to support the utility, temporary placement of a waterline will be permitted as outlined:

A. Installation Timeframe

The permit can be active for up to a maximum time frame of three (3) months from the date of permit approval. Time frames exceeding this amount of time requires coordination and approval from the District. This approval is also required for the placement of a casing pipe by jacking and/or boring methods and a pipeline thickness that provides good protection to the roadway will have to be determined.

B. Culvert Size Requirements

The host culvert must have a rise of thirty six inches (36 in.) or larger and have an existing General Appraisal rating of five (5) or greater and a Waterway Blockage rating of six (6) or more (culvert blockage <=10%). Culvert cleanout may be performed by the permit holder to furnish an acceptable waterway blockage rating with prior approval from the District.

C. Maximum Pipeline Diameter

The maximum allowable waterline diameter is twelve inches (12 in.)

D. Shut-Off Valve

An easily accessible shut-off valve is required in the line prior to the right of way or culvert.
E. Pipeline Diameter Based on Culvert Size

Waterline diameter cannot exceed more than the following listed diameter within the host culvert:

<table>
<thead>
<tr>
<th>Host Structure Rise (inches)</th>
<th>Maximum Waterline Size (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>6</td>
</tr>
<tr>
<td>42</td>
<td>8</td>
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<tr>
<td>48</td>
<td>8</td>
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<td>60</td>
<td>12</td>
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<tr>
<td>&gt;60</td>
<td>12</td>
</tr>
</tbody>
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8110 SCENIC ENHANCEMENT LOCATIONS

8110.01 General

The type and size of utility facilities, along with the manner and extent to which these facilities are permitted within areas of scenic enhancement or natural beauty, can materially alter the visual quality and view of the highway roadside area. This area includes public park and recreational lands, wildlife and water fowl refuges, historic sites, scenic strips, overlooks, rest areas and landscape rights of way. Utility installations are not permitted within the foregoing described lands unless the following specific conditions have been met:

A. Underground Utilities

Underground utilities may be permitted where the installations do not require extensive removal or alteration of trees or terrain features visible to the highway user or where the visual quality of the lands to be traversed will not be impaired.
B. **Aerial Utilities**

Aerial utility installations are to be avoided unless there is no feasible or prudent alternatives to the use of these lands and specific criteria is demonstrated to the satisfaction of the state as follows:

1. Other locations are not available or are usually difficult and/or unreasonably costly or other locations are less desirable from the standpoint of aesthetic quality.

2. Placement underground is not technically feasible or is unreasonably costly.

3. The proposed aerial installation will be made at a location that will employ suitable designs and materials which give the greatest weight to the aesthetic qualities of the area being traversed. Suitable designs include, but are not limited to, self-supporting single pole construction with vertical configuration of conductors and cable.

C. **Highway Purpose**

The forgoing provisions shall also apply to aerial utility installations that are necessary to a highway purpose such as highway lighting to serve a weigh station, rest area or recreational area.

D. **Extenuating Circumstances**

There may be cases of unusual hardship or other extenuating circumstances where some degree of variance with these provisions is warranted. Such cases shall be subject to prior review and concurrence by Central Office Utilities following submission of a proposal and a full report of the circumstances involved.
8111 PERMIT FOR A WIRELESS COMMUNICATION UTILITY

According to the O.R.C. 55011.311 €, the “Telecommunications Act of 1996”, 110 Stat.152, 47 U.S.C. 332 Note, the Director may grant a lease, easement or license in a transportation facility to a telecommunications service provider for construction, placement or operation of a “wireless” telecommunications facility.

It was at this time that the Department established a licensing and fee process for the installation of cell towers in our road right of way. After a license was signed, the installation of the cell tower was controlled by our traditional permitting process and, under the license, the Department has been receiving payment for such installations since the late 90’s. However, in recent years, technology has progressed for systems that provide wireless communication and, as opposed to large cell tower installations, the telecommunication industry is also providing small cell and DAS technology mounted equipment to provide communication capabilities. Such installations of these wireless systems are being done by the applicant on new pole installations or they are entering into a “joint-use” agreement with another utility that owns the pole.

These installations are still subject to our licensing process which is now being handled by Central Office, Office of Facilities. That office has entered into a contract with a consultant that has knowledge of the wireless industry and will work with the applicant to establish a reasonable fee and get a license signed for these types of installations, as well as cell tower installations.

The District Permit Technician needs to review all details of a permit application (MR 505 Application Form) and, if the application appears to be of the wireless telecommunication nature, with regards to the facilities they are going to install, the request needs to be forwarded to Central Office, Office of Facilities. That office will forward the request to their consultant who will work with the permit applicant to establish a license and fee for their installation. The permit is not to be approved until the license agreement is signed. Once these items are in place, the consultant will notify the District Permit Technician that all aspects of the license has been completed, the applicant has signed the license and agrees to the fee and the District can approve the permit. The District Permit Technician will then work with the applicant under our traditional permitting process to
assure the physical installation of the facilities will adhere in all aspects of the permit.

8112 CORRECTIVE MEASURES

The Office of Roadway Safety & Mobility establishes the goals, scope and organization of the safety program. The goal is to improve the overall safety of state highways by systematically identifying and correcting high accident locations and locations which have potential accident features. Highway sections with a high incidence of accidents not related to roadway traffic control deficiencies, such as above ground utility facilities, shall be included in the identification process for appropriate action. In developing highway safety upgrade projects, as well as routine highway projects, utilities with above ground facilities will be requested to relocate facilities as close to the right of way line as possible in uncurbed sections and at least 1.5 feet behind the curb in curbed sections. Likewise, when a utility builds, replaces or upgrades above ground facilities, the same criteria shall be followed.