~~UTILITY ACCOMMODATION POLICY~~

~~Arkansas State Highway Commission~~

Arkansas State Highway and Transportation ~~Department~~ Department

~~Little Rock, Arkansas~~

INDEX

PART II REIMBURSEMENT FOR UTILITY RELOCATIONS AND ADJUSTMENTS

D R A F T

Utility Accommodation Policy

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Arkansas State Highway and Transportation Department
Right of Way Division
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TABLE OF CONTENTS

DEFINITIONS

~~**AHTD/Department -** Shall mean the~~**AHTD** - The Arkansas State Highway and Transportation Department.

ADT - Average Daily Traffic - ~~The average~~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. The term is commonly abbreviated as ADT.

~~1.Low Volume Roadway - Under 2,000 ADT~~
~~2.High Volume Roadway - Over 2,000 ADT~~

~~**Backfill** - Replacement of suitable material compacted as specified around and over a pipe, conduit, casing or other galleries.~~

~~**Backslope** - The slope leading away from flowline of ditch.~~

Abandoned Facility - Facility that is no longer in service and is physically disconnected from a portion of the operating facility that still carries service. An abandoned facility has been deemed abandoned by the utility owner.

As-Built Drawings - Depiction of the installed utility facilities within the highway right of way showing the location and elevation, and referenced to highway stationing, and/or state grid system. Also known as record drawings, these plans depict the facility as constructed, incorporating all field changes.

Backfill - Material used to replace or the act of replacing material removed during construction; also may denote material placed or the act of placing material adjacent to structures.

Backslope - Slope leading away from flow line of ditch.

Bedding - Organization of soil or other suitable material to support a pipe, ~~conduit, casing or other galleries.~~conduit or casing.

Betterment – An improvement of property other than by mere repairs.

Bond – Document that legally obligates one party to pay money to AHTD for unsatisfactory work.

Boring - 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.

Bridge - Structure including supports erected over a depression or an obstruction such as water, highway, or railway; having a track or passageway for carrying traffic or other moving loads; and having a length of twenty (20) feet or greater.

Bury - Depth of top of pipe or facility below grade of roadway or ditch.

~~**Cap** - Rigid structural element surmounting a pipe, conduit, casing or other galleries.~~**Cabinet** – Above ground telecommunication cable housing unit in excess of thirty (30) inches in width.

Carrier- Pipe directly enclosing a transmitted ~~fluid (liquid or gas).~~liquid, gas, or slurry. Also electric or communication cable, wire or line.

Casing - ~~A larger~~Large pipe enclosing a carrier.

Clear Zone - T~~he t~~otal roadside border area, starting at the edge of the traveled way, available for safe use by errant vehicles. This area may consist of a shoulder, a recoverable slope, a non-recoverable slope, and~~.~~/or a clear run-out area. The desired width is dependent upon the traffic volumes and speeds, and on the roadside geometry.

Coating - Material applied to or wrapped around a pipe.

Concrete Slab – Concrete of unified width and thickness.

Conduit ~~**or Duct** - An enclosed tubular~~- Enclosed runway for protecting wires or cables.

~~**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** - The authority to control access is exercised to give preference to through traffic by providing access connections with selected public roads only by prohibiting crossings at grade or direct private driveway connections.~~

~~**Partial Control of Access** - The authority to control 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.~~

Control of Access – The regulation of public access rights to and from properties abutting a highway facility.

Cover - Depth to top of pipe, conduit, casing, cable or similar line or utility tunnel below the earth or roadway surface. ~~It is normally referenced from the bottom of the highway ditch.~~

~~**Cradle** - Rigid structural element below and supporting a pipe.~~

Direct Burial - Installing a utility underground without encasement.

Directional Bore - Method of installing underground pipes and conduits from the surface along a prescribed bore path.

Drain - Appurtenance to discharge liquid ~~contaminants from casings~~.

Drainage Structure - ~~Any structure~~Structure providing drainage for the highway other than a bridge.

Driving Surface – Top layer of material intended for vehicular traffic.

Dry Bore - ~~Augered~~Augured or drilled, the use of water may be used as a lubricant not to exceed 10 psi.

Duct - Enclosed casing for protecting wires, lines, or cables, often flexible or semi-rigid.

Emergency - ~~An unforeseen~~Unforeseen occurrence or condition, that may cause harm to persons, property, or the integrity of the highway, calling for immediate action.

Embankment - Raised platform of earth to confine a waterway or support a road.

Encasement - Structural element surrounding a pipe.

~~**Encroachment** - Unauthorized use of highway right-of-way or easements as for signs, fences, buildings, utilities, parking, storage, etc.~~

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

FHWA - ~~Shall mean the~~The Federal Highway Administration.

~~**Flexible Pipe** - A plastic, fiberglass, or metallic pipe having large ratio of diameter to wall thickness which can be deformed without undue stress.~~

Fiber Optic Cable - Communication cable that contains glass fibers.

~~**Flowline of Ditch** - The low~~**Flow Line of Ditch** - Low point of a ditch that runoff water will follow.

Force Main - Construction that forces liquid to flow in a certain direction by pressure within a pipe.

Foreslope - ~~The slope~~Slope leading away from the pavement or shoulder of a highway.

Freeway ~~- An expressway~~– Divided arterial highway with full control of access.

Frontage Road ~~- A local street or road auxiliary to and~~– A separate roadway located on the side of ~~an arterial highway for service to abutting property and adjacent areas and for control of access.~~

a freeway to provide access to abutting property.

Full Control of Access – The regulation of public access rights to give preference to through traffic by providing access connections by means of ramps with only selected public roads and by prohibiting crossings at grade and direct private driveway connections.

Grade Separation - ~~A crossing~~Crossing of two highways, or a highway and a railroad, at different levels.

Grounded - Connected to earth or to some extended conducting body ~~which~~that serves instead of the earth whether the connection is intentional or accidental.

~~**Grout** - A cement mortar or a slurry of fine sand or clay.~~

High Volume ~~Roadway - Over 2, 000~~Roadway/Highway - Over 2,000 ADT

Highway, Street or Road - ~~A general~~General term denoting a public way for purposes of vehicular travel~~, including the entire area within the right of way~~.

~~**Jacket** - Encasement by concrete poured around a pipe.~~ **Interchange** - Grade separated intersection where access to the major highway is obtained by ramp connections from the minor crossing highway.

Intersection - Area where two or more highways join or cross.

Interstate Highways – A freeway that is a part of the National System of Interstate and Defense Highways.

License - Permit, or grant of permission by the AHTD to cross, occupy, perform work on, or use highway right of way or property.

Low Volume Roadway/Highway - Under 2,000 ADT

Manhole/Handhold - ~~An opening~~Opening in an underground system which workmen or others may ~~enter~~utilize for the purpose of making installations, inspections, repairs, connections, and tests.

Median - ~~The portion~~Portion of a divided highway separating the traveled ways for traffic in opposite directions.

MUTCD - Manual on Uniform Traffic Control Devices. ~~**Normal** - Crossing at a right angle.~~

National Highway System (NHS) - Interconnected system of principle arterial routes serving major population centers, international border crossings, ports, airports, public transportation facilities, and other intermodal transportation facilities and major travel destinations. The NHS includes all highways on the Interstate System, a large percentage of urban and rural principle arterials, the defense strategic highway network, and major strategic highway connectors.

OSHA - Occupational Safety & Health Administration ~~**Overfill** - Backfill above a pipe.~~

Out-of-Service Facility - Facility that is no longer maintained and is not intended for future use, but has not been deemed abandoned. An out-of-service facility may still be connected to a portion of the operating facility that is in use or still carries service. The utility owner retains ownership of such a facility.

Partial Control of Access – The regulation of public access rights 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.

Pavement Structure - ~~The combination~~Combination of subbase, base course, and surface placed on a subgrade to support the traffic load and distribute it to the roadbed.

Permit - Documents by which the AHTD regulates and approves the use and occupancy of highway right of way by utility facilities or private lines.

Pipe - ~~A tubular~~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 - Continuous carrier used primarily for the transportation of liquids, gases, and/or solids from one point to another using either gravity or pressure flow.

Plant betterment – Optional upgrade to a utility owner's equipment or facilities when additional improvements are not mandated by regulations, preexisting policies, or required to clear highway construction.

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

Pressure - Relative internal pressure.

Private Lines - Privately owned facilities that convey or transmit commodities that are devoted exclusively for private use.

Relocation – Changing the location of existing facilities to avoid conflict.

Rest Area - 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, telephones, information, and other facilities for travelers.

~~**Right-of-Way** - A general~~**Right of Way** - General term denoting land, property, or interest therein, usually in a strip~~,~~ acquired for or devoted to transportation purposes.

Rigid Pipe - Pipe designed for diametric deflection of less than 1%.

Roadside - ~~A general~~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 - ~~The portion~~Portion of a highway, including shoulders, for vehicular use. A divided highway has two or more roadways.

Roadway Cross ~~Sections~~ - ~~That area~~Section - Area of a highway facility contained between the outside edges of backslopes/foreslopes ~~(Divided~~(For divided facilities, the term applies to each set of roadways).

~~**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, telephones, 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~~-~~% to 3% diametric deflection.

Shared Resources – Placement of utilities (fiber optics) within Control of Access by special agreement and consideration.

Shoulder - ~~The portion~~Portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface course~~s~~.

~~**Sidefill** - Backfill alongside a pipe.~~

~~**Slab, Floating** - Slab between but not contacting pipe or pavement.~~

~~**Sleeve** - Short casing through pier or abutment of highway structure.~~

~~**SubBase** - The later or layers~~**Subbase** - Layers of specified or selected material of designated thickness placed on a subgrade to support a base course.

Subgrade - ~~The top surface of a roadbed~~Top surface of an embankment upon which the pavement structure and shoulders are constructed.

~~**Temporary Barrier** - Temporary barriers are used to prevent vehicular access into construction or maintenance work zones and to redirect an impacting vehicles so as to minimize damage to the vehicle and injury to the occupants, while providing worker protection.~~

~~**Traffic Barrier** - A device used to prevent a vehicle from striking a more severe obstacle or feature located on the roadside or in the median, or to prevent crossover median accidents.~~

~~**Toe of Slope** - The bottom of a slope of a fill or cut area usually the lowest point of the slope.~~

~~**Traffic Control Device** - Any sign, signal, marking, or installation placed or erected under public authority for the purpose of regulating, warning, or guiding traffic.~~

~~**Traveled** Way - The portion of the roadway for the movement of through traffic.~~

Trenched - Installed in a narrow open excavation.

~~**Untrenched** - Installed without breaking ground or pavement surface for such operations as jacking, tunneling, boring, or mechanical compaction.~~

Toe of Slope - Bottom of a slope of a fill or cut area usually the lowest point of the slope.

Traffic Control Device - Sign, signal, marking, barrier or other control mechanism placed or erected under public authority for the purpose of regulating, warning or guiding traffic.

Traveled Way - Portion of the roadway for the movement of through traffic.

Utility Permit or Use and Occupancy Agreement ~~**or Utility Permit** - The document~~ - Document by which the ~~highway authority~~AHTD regulates and/or gives approval of the use and occupancy of highway ~~right-of-way by~~right of way for utility facilities or private lines.

Utility Tunnel ~~- An underpass~~– Underground corridor for one or more utility lines.

Vent - Appurtenance to discharge gaseous contaminants from casing.

~~**Walled** - Partially encased by concrete poured alongside the pipe.~~

Wet Bore - ~~A hole~~Hole is sluiced through the roadway ~~subgrade~~embankment by jetting with water ~~under high pressure.~~pressure in excess of 10 psi.

ARKANSAS STATE HIGHWAY COMMISSION

UTILITY ACCOMMODATION POLICY

PART I
INSTALLATION, ADJUSTMENT, RELOCATION AND REMOVAL OF UTILITY FACILITIES ON HIGHWAY RIGHT OF WAY AND PROPERTY

DISTRIBUTED BY
UTILITIES SECTION - RIGHT OF WAY DIVISION

PART I
ACCOMMODATION OF UTILITIES ON HIGHWAY RIGHT OF WAY

SECTION I

INTRODUCTION

~~PURPOSE~~OVERVIEW

1.1 PURPOSE

~~To prescribe the policies and procedures~~This Policy prescribes the minimum requirements for the accommodation of~~utility facilities, both~~ public and private ~~on the right-of-way of all roadways and property within~~utilities within the right of way of the Arkansas State Highway~~and Transportation Department~~ System.

1.2 AUTHORITY

Under Arkansas Statutes, 27-67-218 and ~~27-67-304 public utilities~~27-67-304, public utility owners may use highway ~~right-of-way~~right of way for the purpose of ~~installing~~installation of utility facilities, provided such use will not interfere with the use of the ~~right-of-way~~right of way for highway purposes. These statutes require the installation of utility facilities to ~~Utility owners~~be in accordance with rules and regulations of the Arkansas State Highway Commission (Commission). A utility owner must secure a permit and post a bond with the Arkansas State Highway and Transportation Department (AHTD) prior to performing any work. The bond will be used by the ~~Commission~~AHTD in restoring the highway right of way to its former condition if the utility ~~who disturbs the highway fails to do so. Installation of utility facilities on highway right-of-way must be done~~owner fails to properly restore the right of way in accordance with the ~~rules and regulations prescribed by the Arkansas State Highway Commission.~~plans, permit conditions, and this Policy.

~~To authorize the Utilities Section, Right of Way Division, Arkansas State Highway and Transportation Department to, issue permits and enter into agreements to provide for the installation, adjustments, relocation, maintenance, or removal of utilities on highway right-of-way and property. Issue permits for mechanical trimming and for use of chemicals for vegetation control on highway rights-of-way and property. Cover existing and provide for future joint use and occupancy of highway and utility rights-of-way and/or properties by highway and utility facilities on, over, under or across the same lands and under coincidental property rights or interests in accordance with State Law and Federal rules and regulations.~~

104.APPLICATION

This policy shall apply to the owners and operators of utility facilities including but not limited to electric power, water, sewer, gas, communications (telephone, telegraph, cable TV, and fiber optic or light guide cables), chemical, oil, petroleum products, steam, storm water not connected with highway drainage, irrigation and similar facilities.

This policy shall apply to all new installations, and to the servicing, repair, restoration, relocation, rehabilitation, or removal of any existing utility facilities where the roadway, roadside, right-of-way, or traffic will be affected by the work operations or by the new facilities occupancy.

105.PRIOR POLICY

The provisions of this Statement of Policy shall supersede and void all prior Commission or Administrative Orders and/or Statements of Highway Department Policy relating to the accommodation and/or adjustment of utilities on highway rights-of-way, included in Commission Minute Order No. 70-300 dated August 26, 1970, Commission Order No. 77-80 dated February 23, 1977, and Commission Order No. 89-455 dated September 20, 1989.

106.EXCEPTIONS

Exceptions to any provisions of this policy may be authorized under certain situations where it is shown that extreme hardship and/or unusual conditions provide justification, and where alternate measures can be prescribed in keeping with the intent of this policy.

Consideration of requests for exceptions on controlled access highways will be in accordance with American Association of State Highway and Transportation Official's (AASHTO) "A Policy on the Accommodation of Utilities Within Freeway Right-of-Way" (current issue).

Any request for exceptions to this policy shall be submitted to the Utilities Section for Departmental review and approval.

SECTION 2

GENERAL CONSIDERATIONS

The location and design of all utility installations within the highway rights-of-way shall conform as a minimum to the following:

201. LOCATION – CONTROLLED ACCESS HIGHWAYS

1. Longitudinal utility facilities are not permitted inside the limits of access control of a fully controlled access highway.

2. See Section 201A for this portion of the policy as it applies to fiber optics.

3. The installation of utilities on Partially Controlled Access Highways will be the same as Non-Controlled Access Highways with one notable difference – difference – the utility facility will only be accessible at break points in the PCOA (driveways, county roads, etc.)

4. On highways with frontage roads, longitudinally utility installations may be located between the frontage roads and the right-of-way line.

5. Temporary access for construction by the Utility will be accomplished without using main lanes or connecting ramps, and shall pose no impact on the health, safety and welfare of the public.

6. Utility lines crossing the highway should be located at approximate right angles to the highway to the extent feasible and practicable.

7. Single customer utility service line connections crossing controlled access highways shall not be permitted in areas where distribution or feeder line crossings are available within a reasonable distance to serve consumers on on either side of the highway.

8. The horizontal and vertical location of utility lines should conform with the clear roadside policy of the Department, consistent with the clearances applicable to all roadside obstacles. (AASHTO Roadside Design Guide – Guide – current issue).

9. All fully controlled access crossings must be encased the full width of the highway right-of-way.

201A FIBER OPTIC FACILITIES ON FULLY CONTROLLED ACCESS HIGHWAYS

I. STATEMENT OF POLICY

This policy is established pursuant to 23 U.S.C. 109 and 111 and Federal Regulations, which govern use and points of access to the Interstate and other controlled access highways and the 1989 Policy of The American Association of State Highway and Transportation Officials which provides for longitudinal use when a determination is made that denial would result in severe hardship or is contrary to the public interest.

It shall be the policy of the Department, to permit fiber optic facilities to locate longitudinally within the access control limits of fully controlled access highways when approved conditions are met.

Utilities which must cross over or under fully controlled access highways will be regulated in accordance with applicable Sections of the Utility Accommodation Policy.

A. CRITERIA FOR LONGITUDINAL INSTALLATIONS

The Arkansas State Highway and Transportation Department may permit longitudinal installations of fiber optic cable within the access control limits under the following conditions:

1. The cable is underground.

2. No above ground support facilities are to be within the access control limits, unless such limits, unless such facilities can be located at interchanges or highway rest areas and be of such design and location so as not to constitute a hazard.

3. Temporary access for construction by the Utility should be accomplished without using main lanes or connecting ramps, and shall pose no impact on the health, safety and welfare of the public. Traffic control shall comply with AHTD specifications and MUTCD.

4. Service connections to adjacent properties shall not be permitted from longitudinal utility installations located within the access control of a freeway. (except at interchanges, where approved).

5. The facilities shall present no hazard to life, health, or property, should it fail to function properly, be severed or otherwise damaged.

6. Facilities shall be installed in a manner which will require minimum maintenance.

~~7.No cable shall be permitted within the control of access unless the cable owner is a member of Arkansas One Call.~~

8. Any cable permitted in the control of access must be for shared resource purposes with the Department or for an agreed to service at another location.
This will enable the Department to improve its own communication network and obtain traffic control data from remote locations without substantial expenditures.

B. LIABILITY

This policy does not confer any liability upon the Arkansas State Highway and Transportation Department for any future costs of, damages to, or relocation or removal of the utility from the right-of-way for any reason

C. PRINCIPLES

The underlying principles of this policy are as follows:

1.Economic benefits realized can be passed directly to the general public as users of transportation and utility facilities.

2.Public benefits may accrue if undisturbed land is preserved through joint use of the right-of-way corridors.

3.By being the most direct route with favorable grade and alignment these corridors provide the most economic transmission route.

4.Protected access of these corridors offers more security to utility lifelines from accidental or malicious damage.

D. GENERAL

1.All utility accommodations other than longitudinal on fully controlled access highways shall be in accordance with other parts of this Utility Accommodation Policy.

2.This policy does not apply to existing utility installations, except when there is a major replacement of current telephone or communication facilities.

II. INSTALLATION AND MAINTENANCE GUIDELINES

A. UTILITY REQUIREMENTS

1. The Department may establish a utility corridor along the outer edge of the right-of-way line and a utility access control line between the utility corridor and the roadway and ramps. Where feasible, the utility shall place its facility within this corridor and conduct installation within this area.

2. Limited maintenance will be permitted on the underground facility from within the utility corridor.

3. The utility's installation plan shall take into account:

a.Planned or likely improvements or alterations in the nature or configuration of the highway.

b.Planned or likely improvements or alterations in the nature and configuration of the utility system.

c.Planned or likely use of the utility corridor by other utilities or private users whose installations may also quality under this policy.

4. Permanent above ground facilities shall not be placed within the access control of the highway facility except for documented hardship conditions or for installations at rest areas, interchanges, and only with Department approval.

5. The Utility will furnish all materials and labor required for the proposed installation. The Utility may install its facility by manual or machine methods. When it installs ducts, the ducts shall be installed to a depth which permits at least 36 inches of ground cover. Upon completion of installation, the utility shall return the disturbed area to its original condition. Backfill shall be compacted to the same condition as the surrounding area and seeded in accordance with the current edition of AHTD "Standard Specifications for Highway Construction".

6. The installation of underground ducts for fiber optic cable shall include all appurtenances necessary or incidental to the operation of the facility, and shall include manholes or other access points at appropriate spacing to permit pulling of additional cables into the duct system without further excavation.

7. A Traffic Control Plan shall be included as a part of the Utility's installation plans and shall address parking of the work crews and storage of materials. No parking or storage of materials shall be allowed on the right-of-way unless approved by the Department.

8.The Utility shall install permanent markers at appropriate intervals showing the approximate location of its under-ground facility. Markers shall not interfere with highway operations nor constitute a hazard to the traveling public. The Utility shall also maintain records that describe the facility, its location, depth, size and other relevant data, which shall be available to the Department's Utilities Section and to other interested Utilities. A copy of these records, including as-built plans and any subsequent revisions shall be provided to the Department's Utilities Section.

9.The Utility will comply with Industry Standards for special marking techniques and location standards for their facility, except where this Policy calls for different procedures, the installation and maintenance of utility facilities under this Policy shall follow applicable procedures set forth elsewhere in this policy.

10.The Utility shall make no direct service connection to adjacent properties from the installed utility facility, except that the utility line or branch of the utility line may exit the highway right-of-way at any any point along the right-of-way, upon approval by the Department. Department.

11.The Utility shall obtain all approvals for the authorized activities, including necessary environmental and federal regulatory authorizations, if applicable.

12.The Policy shall be implemented through an "Agreement" upon finding that a proposed installation meets the criteria and conditions of this Policy.

202. LOCATION - NON-CONTROLLED ACCESS HIGHWAYS

1.The integrity of the roadway cross section must be maintained; therefore, no excavation or longitudinal installations will be permitted within this area. (See Figure 1, Page 33)

2.Utility facilities shall be located to avoid or minimize the need for adjustment for future highway improvements and to permit access to the utility lines or maintenance with minimum interference to highway traffic.

3.Longitudinal installations shall be located on uniform alignment as near as as near as practicable to the right-of-way line to provide a safe

environment for traffic operation and preserve space for future highway improvements or other utility installations.

4.To the extent feasible and practicable, utility crossings of the highway should be installed on a line generally normal to the highway alignment.

5.The horizontal and vertical location of utilities lines should conform with the clear roadside policy of the Department, consistent with the clearances applicable to all roadside obstacles. When these conditions cannot be met and it is determined by the Department to be in the best interest of the public, a utility facility may be permitted to do so using the "AASHTO Roadside Design Guide" (current issue). Full consideration shall be given to all measures reflecting sound engineering principles and economic factors necessary to preserve and protect the integrity of the highway and to avoid interference with the use of the right-of-way for highway purposes; even if the result is that the utility cannot be accommodated on the highway right-of-way.

203. DESIGN

1.The design and integrity of any utility installation will be the responsibility of the utility owner. This includes the measures to be taken to preserve the safe and free flow of traffic, the structural integrity of the roadway or highway structures, ease of highway maintenance, and the appearance of the highway. The location and manner of installation within the highway right-of-way must be reviewed and approved by the Department.

2.Such approvals shall be in accordance with AASHTO publications "A Guide for Accommodating Utilities within Highway Right of Way" and "A Policy on the Accommodation of Utilities Within Freeway Right of Way" (current issues) adopted by reference herein with the same force and effect as if recited at length.

3.Design of utility installations on, over, or under highway right-of-way or attached to highway structures should as a minimum meet the following requirements:

(a)Electric power and communication facilities should conform with the currently applicable National Electrical Safety Code.

(b)Waterlines should conform with the current applicable specifications of the American Water Works Association.

(c)Pressure pipelines should conform with the current applicable sections of the Standard Code of Pressure Piping of the American National Standards Institute, Title 49 CFR Parts 192, 193, 195 and applicable industry codes.

(d)Liquid petroleum pipelines should conform with applicable recommended practice of the American Petroleum Institute for pipeline crossings under railroads and highways.

(e)Any pipeline carrying hazardous materials shall conform to the rules and regulations of the United States Department of Transportation governing the transportation of such materials.

4.Above ground utility facilities should be of a design compatible with the visual quality of the specific highway section being traversed.

5.All utility installations within highway right-of-way or attached to highway structures should be of durable materials designed for long service life expectancy and relatively free from routine servicing and maintenance.

6.On new installations or adjustments of existing utility lines, provisions should be made for known or planned expansion of the utility facilities, particularly those located underground or attached to bridges. They should be planned so as to minimize hazards and interference with highway traffic when additional overhead or underground lines are installed at some future date.

7.Manholes/handholes shall be limited to those necessary for installation and maintenance of underground lines. In no case shall they be placed or permitted to remain in the pavement or shoulders of high volume roadways. Exceptions may be allowed at those locations on non-controlled access highways in urban areas where necessary for existing lines which may be permitted to remain in place under existing or proposed roadways. Manholes may remain in place or be installed under traffic lanes of low volume roadways in municipalities provided measures are taken to minimize such installations and to avoid their locations at intersections as much as possible.

8.Manholes/handholes vary as to size and shape depending on the type of utility they serve. To conserve space their dimensions

should be the minimum acceptable by good engineering and safety standards. Where soil conditions require, outside forms shall be used. In general the only equipment to be installed in manholes located on highway right-of-way is that which is essential to the normal operation of the utility, such as cable splices, relays, etc. Other equipment, pumps, etc. should be located outside the limits of the highway right-of-way. All manhole covers shall be flush with the ground or pavement surface, whichever is applicable. All manholes shall be designed with sufficient structural capacity for vehicular loading in accordance with AHTD current standard specifications.

9. Acquiring all necessary permits, including the accommodation of utilities on highway right-of-way and environmental controls shall be the responsibility of the utility owner.

1.204. SCENIC ENHANCEMENT

1.

1. The type and size of utility facilities, and the manner and extent to which they are permitted along or within highway right-of-way can materially alter the scenic quality, appearance, and view of highway roadsides and adjacent areas. For these reasons, additional controls are applicable in certain areas that have been acquired or set aside for their scenic quality. Such areasincludescenic strips, overlooks, rest areas, recreational areas, the rights-of-way of highways adjacent to such areas, and the rights-of-way of sections of highways which pass through forests, parks and historic sites. Aerial installations will not be approved at such locations when there is a feasible and prudent alternative.

2.To protect trees and shrubbery on the highway right-of-way the Department shall specify the extent and methods of tree removal and trimming in making underground or overhead utility installations. Where Where justified by conditions, the Department may permit removal of trees or shrubbery of value to the highway, provided the utility owner replaces such removals as specified by the Department's District Engineer.

205. SAFETY

1. The Utility Owner shall assume full liability of hazard to traffic created by their operation and shall maintain use of appropriate safety devices such as barricades, lights, signs and flagging operations needed to protect traffic and shall comply with the "Manual on Uniform Traffic Control Devices" (MUTCD – current

~~issue).~~

~~2.The utility owner shall be responsible for maintaining all existing highway, street, and county road regulatory warning, guide and informational signs in an effective location at all times for the duration of any work while on highway rights-of-way and shall re-install them at the correct location upon location upon the completion of the work. Any sign damaged during the work shall be replaced at the utility owner's expense.~~

~~3.The utility owner shall indemnify and save harmless the State of Arkansas, the Arkansas State Highway Commission, the Arkansas State Highway and and Transportation Department, its officials and employees, in all respects from any and all losses, damages or injury to persons or property resulting in any manner from any negligent act or omission in connection with work operations, occupancy, or use of State Highway Rights-of-Way or Property.~~

~~3.~~SCOPE

The AHTD, through the Districts and the Utilities Section of the Right of Way Division, is authorized to issue permits and enter into agreements to provide for the installation, relocation, maintenance, or removal of utilities on highway right of way and property, and to issue permits for mechanical trimming and for use of chemicals for vegetation control on highway right of way and property. This Policy regulates and prescribes the location, design, and methods for installation, relocation, maintenance, or removal of utility facilities on AHTD highway right of way.

1.3 APPLICATION

This Policy shall apply to the owners and operators of utility facilities, including but not limited to electric power, water, sewer, gas, communications, chemical, oil, petroleum products, steam, storm water not connected with highway drainage, irrigation, and similar facilities. This Policy shall apply to:

- Installation of new utility facilities;
- Addition to or maintenance of existing utility facilities;
- Relocation of utility facilities;

- Removal of utility facilities; and
- Vegetation control related to utility facilities installations and maintenance.

This Policy shall apply to underground, surface or overhead facilities, either singularly or in combination, including attachments to bridges and highway structures.

1.4 PRIOR POLICY

The provisions of this Policy shall supersede and void all prior Commission or Administrative Orders and/or Statements of AHTD Policy relating to the accommodation and/or relocation of utilities and related vegetation control on highway right of way.

1.5 EXCEPTIONS

Exceptions to any provisions of this Policy may be authorized under certain situations where it is shown that extreme hardship and/or unusual conditions provide justification, and where alternate measures can be prescribed in keeping with the intent of this Policy. Any such exceptions must be:

a. Requested by an authorized person representing the utility owner;
b. Recommended for approval by District Engineer;
c. Concurred in by the Federal Highway Administration (FHWA) if the exception applies to a utility facility located on the Interstate Highway System;
d. Recommended for approval by the Right of Way Division Head;
e. Approved by the Assistant Chief Engineer-Design.

1.6 ENFORCEMENT

This Policy shall be enforced as provided for in existing Arkansas Statutes. Such enforcement might include, but is not limited to the following:

- Increased bonding levels to recoup potential restoration costs;
- Denial of future permits until past non-compliance is resolved; and
- Litigation.

1.7 RIGHT TO REVOKE

The Director of Highways and Transportation is authorized to revoke or annul a permit or agreement, subject to giving the utility owner reasonable notice. Justifications for revocation include, but are not limited to the following:

- Failure to comply with the provisions of this Policy.
- Failure to comply with the terms and conditions of the permit or agreement.
- If the utility occupancy becomes an interference to the use of the highway right of way for highway purposes.

2 DESIGN AND INSTALLATION

2.1 GENERAL

The utility owner shall provide plans detailing the proposed work with the permit application. This section provides information on design and installation requirements for the work.

2.2 DESIGN

1) All utility installations within the highway right of way shall conform, as a minimum, to 23 CFR Part 645 B and the most recent versions of the following American Association of State Highway and Transportation Officials (AASHTO) publications:
   a) Roadside Design Guide;
   b) A Policy on Geometric Design of Highways and Streets;
   c) A Policy on the Accommodation of Utilities Within Freeway Right of Way; and
   d) A Guide for Accommodation of Utilities within Highway Right of Way.
2) Design of utility installations on, over, or under highway right of way or attached to highway structures shall also, as a minimum, conform with:
   a) 23 CFR Part 645B, Accommodation of Utilities
   b) 49 CFR Part 192, Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards
   c) 49 CFR Part 193, Liquefied Natural Gas Facilities: Federal Safety Standards
   d) 49 CFR Part 195, Transportation of Hazardous Liquids by Pipeline
   e) The current edition of Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction
   f) The current applicable National Electrical Safety Code for electric power and communications.

g) The applicable specifications of the current American Water Works Association for waterlines.

h) The applicable sections of the current Standard Code of Pressure Piping of the American National Standards Institute, and any other applicable industry codes for pressure pipelines.

i) The current applicable practices of the American Petroleum Institute for pipeline crossings under railroads and highways for liquid petroleum pipelines.

j) The current specifications established by the American Society for Testing and Materials.

k) Rules and regulations of the United States Department of Transportation governing the transportation of such materials for any pipeline carrying hazardous materials.

l) Applicable Federal, State and local laws and regulations pertaining to environmental issues, including but not limited to storm water pollution prevention, endangered species, and wetland preservation.

3) The utility owner shall ensure that the location of utility facilities and appurtenances complies with the Americans with Disabilities (ADA) Act.

4) The utility owner shall ensure that the work complies with the requirements of the National Pollutant Discharge Elimination System (NPDES) program.

5) Acquiring all necessary permits, including the accommodation of utilities on highway right of way and environmental controls, shall be the responsibility of the utility owner.

6) The design and integrity of any utility installation shall be the responsibility of the utility owner. This includes measures to preserve the safe and free flow of traffic, the structural integrity of the roadway or highway structures, minimal interference with highway maintenance, and the appearance of the highway.

The location and manner of installation within the highway right of way must be reviewed and approved by the AHTD.

7) Utility facilities shall be located in a manner that will minimize the need for later relocation to accommodate future highway improvements and allow access for servicing the facilities with a minimum of interference to highway traffic.

8) Existing underground utility facilities, vulnerable to damage from highway construction or maintenance operations by reason of shallow bury or quality of the materials, may be allowed to remain in place under roadways in urban areas and low volume highways if suitable bridging, concrete slabs, extra depth, or other appropriate measures are used for protection.

9) The horizontal and vertical location of utility facilities within the highway right of way must, to the extent practicable, conform with the clear zone policy applicable to the type of highway and specific conditions of highway section involved.

10) The integrity of the roadway cross section must be maintained; therefore, no excavation or longitudinal installations will be permitted within this area with the exception of crossings.

11) On new installations or relocations of existing utility lines, provisions should be made for known or planned expansion of the utility facilities, particularly those located underground or attached to bridges. They should be planned so as to minimize hazards and interference with highway traffic when additional facilities are installed in the future.

12) Above ground utility facilities should be of a design compatible with the visual quality of the specific highway section being traversed.

13) All utility installations within highway right of way or attached to highway structures should be of durable materials designed for long service life expectancy and relatively free from routine servicing and maintenance.

2.3 SCENIC ENHANCEMENT

The type and size of utility facilities, and the manner and extent to which they are permitted along or within highway right of way can materially alter the scenic quality, appearance, and view of highway roadsides and adjacent areas. For these reasons, additional controls are applicable in certain areas that have been acquired or set aside for their scenic quality. Such areas may include scenic highways, scenic byways, scenic strips, overlooks, rest areas, recreational areas, and the right of way of sections of highways that pass through forests, parks and historic sites.

1) Aerial installations will not be approved at such locations when there is a feasible and prudent alternative. The AHTD may permit exceptions under the following conditions:

   a) New underground installations may be permitted only if extensive removal or alteration of trees or terrain features visible to the highway users is not required.

   b) New aerial installations may be permitted only when other locations are not available; are unusually difficult or costly; or are less desirable from the standpoint of aesthetic quality; or when placement underground is not technically feasible or is unreasonably costly.

2) The proposed installation will be made at a location that will utilize an approved design and suitable materials that will be compatible with the aesthetic qualities of the area affected.

3) To protect trees and shrubbery on the highway right of way, the extent and methods of vegetation removal and trimming for overhead or underground utility installations will require the approval of the District Engineer. The District Engineer may require the utility owner to replace removed trees and shrubs with plants approved by the AHTD.

2.4 SAFETY

The following items related to safety apply to the utility owner's activities within the highway right of way. By undertaking work within the highway right of way, the utility owner agrees to the following:

1) The utility owner shall assume full liability for any hazard to traffic created by their operation and shall maintain use of appropriate traffic control to protect traffic and shall comply with the current edition of the "Manual on Uniform Traffic Control Devices" (MUTCD).

2) The utility owner shall assume full responsibility for safeguarding all utilities in the work area during the time of construction and shall notify Arkansas One-Call and have utility facilities located prior to beginning work that would disturb soil.

3) The utility owner shall be responsible for maintaining all existing highway, street, and county road regulatory, warning, guide and informational signs in an effective location at all times for the duration of any work while on highway right of way and shall reinstall them at the correct location upon the completion of the work. Any signs damaged during the work shall be replaced at the utility owner's expense.

~~4.~~4) The utility owner shall perform all work in accordance with State ~~Law, Federal rules (and regulations),~~law, Federal law and regulations, local ordinances and regulations, and in accordance with ~~OSHA~~Occupational Safety and Health Administration (OSHA) standards.

~~**206. CONSTRUCTION & MAINTENANCE OPERATIONS**~~

~~1.The utility owner must notify the Department's appropriate District three (3) days prior to beginning work on highway right-of-way. (See back cover). cover).~~

~~2.The utility owner shall take all means necessary to protect the traveling public and to avoid any hazard or interference to the safe and free movement of of traffic on the highway. In some~~

~~circumstances it may be necessary that the hours of work operation be established by the Department's District personnel (See Figures 16, page 48 and 17, page 49).~~

~~3.The utility owner shall provide adequate protection on or over any pavement, roadway surfacing, shoulders or highway structure before moving or operating operating any heavy or steel tracked or cleated equipment thereon. The method of protection must first be approved by the Department's District personnel.~~

~~4.The utility owner shall not use or cause to be used, heavy equipment on soft shoulders or unsurfaced right-of-way areas during wet or bad weather in the the initial construction or during normal servicing when such use could cause excessive damage to the shoulders or~~

~~unprotected right-of-way areas.~~

~~5.The utility owner will not track mud onto the roadway surface under any circumstances. The utility owner shall take steps to eliminate dust along state highways during the construction period. If, in the opinion of the Department's District Engineer or his representative, dust is excessive, the utility owner shall immediately take necessary action to resolve the problem.~~

~~6.Care shall be taken in utility installations to avoid disturbing existing highway drainage facilities.~~

~~7.Trenches for utility installations shall be backfilled with previous material, and outlets shall be provided for entrapped water so as to avoid even temporary ponding or excess sub-base saturation. Underdrains should be provided where necessary. No jetting or puddling shall be permitted under the roadway. (See Figure 8, page 40 and Figure 11, page 43).~~

~~8.The highway right-of-way shall not be used as a material storage area or for maintenance of vehicles or parking of equipment and/or vehicles.~~

~~9.Blasting will not be permitted on highway right-of-way except with specific approval of the Department's District Engineer.~~

~~10.All non-metallic buried facilities placed on highway right-of-way either parallel to or crossing the roadway, shall have an approved identification wrap of detectable tape or wire in order that the facility can be located by metal locators or other suitable devices.~~

~~11.All highway rights-of-way in the State Highway System are being monumented with permanent orange triangular metal markers. Should any markers be damaged during a utility's work operation, the responsible party must notify the Department's District Engineer who will re-establish the monument and bill the utility owner for the cost (See Figure 14, page 46)~~

~~12.When the removal of a section of the right-of-way or control of access fence has been approved by the Department, the fence must be reinstalled as soon as possible and to the satisfaction of the Department's District Engineer.~~

~~13.When new or relocated utility facilities are located or constructed along, on, on, or across a freeway the location and future servicing~~

of such facilities shall comply with the AASHTO policy set forth in "A Policy on the Accommodation of Utilities Within Freeway Rights of Way" (current issue). This policy shall also be used as a guide for access routes and restrictions for servicing as appropriate on all highways with partial control of access.

14. Servicing of utilities which are installed solely for operating freeway facilities shall not be performed directly from through traffic lanes or ramps, and the utility shall exercise extreme caution in using the freeway as a route of access to the proximity of the utility service area to avoid any hazard or interference to the safe and free movement of traffic on the freeway during such utility access and operations.

1 S. The area disturbed by utility construction, or maintenance, shall be kept to a minimum. The utility owner shall restore all highway right-of-way to as good or better condition than before. Restoration methods shall conform to the Department standard specifications and/or special provisions in permits and use and occupancy agreements. Restoration work must be approved by the Department's District personnel.

16. Work on any buried utility line crossing under highway bridges shall not be started until all material and equipment are available for immediate use. When the work is started, it must be completed as soon as possible. Trenches under highway bridges shall not be left open when work is not being performed. Where work under a bridge involves disturbing existing rip rap, (specific approval required) the rip rap must be restored to equal or better condition and is subject to the approval of the Department's District or Bridge Engineer.

SECTION 3

UNDERGROUND UTILITY INSTALLATIONS

301. CROSSINGS

Crossings may be ENCASED or UNCASED as determined by specific conditions of the Utility, the Department, or type of highway facility.

1. ENCASED:

~~(a)Casings shall be designed to support the load of the highway and superimposed loads thereon and, as a minimum, shall equal the structural requirements for highway drainage facilities. Casings should be composed of materials of satisfactory durability under conditions to which they may be subjected.~~

~~(b)~~

5) ~~Casings shall have a minimum of 36 inches of cover to the top of the pipe below the parallel ditch lines or 42 inches below the top of the highway subgrade, whichever gives the greater cover. Casing should extend as a minimum 36 inches beyond the flowline of parallel ditches, toe of the foreslope, foreslope, or back of curbs as applicable for the highwaysection. Casing/encasement pipe shall extend a minimum of six (6) feet beyond the toe of slope of embankment sections and a minimum of six (6) feet beyond the bottom of existing ditches (flowline) or back of curb in curbed~~ The utility owner shall indemnify and save harmless the State of Arkansas, the Arkansas State Highway Commission, the Arkansas State Highway and Transportation Department, its officials and employees in all respects from any and all losses, damages or injury to persons or property resulting in any manner from any negligent act or omission in connection with work operations, occupancy or use of AHTD highway right of way or property.

2.5 WORK CONDITIONS

The following conditions apply to the utility owner's activities within the highway right of way. By undertaking work within the highway right of way, the utility owner agrees to these conditions. These conditions should be considered in the design and installation of the utility facilities:

1) The utility owner shall notify the District Engineer four (4) AHTD business days prior to beginning work on highway right of way.

2) Any lane closure or lane width restriction required by the utility work shall comply with the current edition of the MUTCD. The utility owner shall notify the District Engineer in writing a minimum of four (4) AHTD business days prior to any planned lane closure or lane width restriction. This notification shall include the beginning and ending dates for the closure or

restriction, the beginning and ending times for the closure or width restriction, a description (inside/outside, traffic direction) of the lane to be closed or width restricted, and the minimum width of the remaining lane or lanes open to traffic. The utility owner shall notify the District Engineer in writing when the lane closure or width restriction is removed.

3) The utility owner shall take all means necessary to protect the traveling public and to avoid any hazard or interference to the safe and free movement of traffic on the highway. In some circumstances it may be necessary that the District Engineer establish the hours of work.

4) The utility owner shall provide adequate protection on or over any pavement, roadway surfacing, shoulders or highway structure before moving or operating any heavy or steel tracked or cleated equipment thereon. The method of protection must be acceptable to the District Engineer.

5) The utility owner shall not use heavy equipment on soft shoulders or unsurfaced right of way areas during wet or inclement weather in the initial construction or during normal servicing when such use could cause excessive damage to the shoulders or unprotected right of way areas.

6) The utility owner shall provide for restoration or repair of any portion of a bridge, highway structure, or other highway facility disturbed or damaged by utility installation, maintenance, or use.

7) The utility owner shall conduct the work in a manner to avoid tracking mud onto the roadway surface, immediately remove any mud tracked onto the roadway, and take appropriate action to avoid additional tracking.

8) The utility owner shall take steps to eliminate dust within the highway right of way and immediately take appropriate action to eliminate and prevent the dust.

9) The utility owner shall not use permanent paint for marking within the highway right of way. The utility owner shall not place any markings on bridges or highway structures.

10) The utility owner shall backfill excavated areas with the excavated or equivalent/suitable material and outlets shall be provided for entrapped water, to avoid ponding or excess sub-base saturation.

11) The utility owner shall provide proper protection for any excavated areas that are to remain open when work is not being performed.

12) The utility owner shall not use the highway right of way as a material storage area or for maintenance of vehicles or parking of equipment and/or vehicles.

13) The utility owner shall not perform blasting within the highway right of way unless specifically approved by the District Engineer.

14) The utility owner shall utilize an approved identification wrap of detectable tape or wire on all non-metallic buried facilities installed within the highway right of way either parallel to or crossing the roadway in order that the facility can be located by metal locators or other suitable devices.

15) The utility owner shall protect existing right of way monuments from damage, immediately notify the District Engineer if a monument is damaged, and provide for a Registered Professional Land Surveyor to re-establish any monuments or markers that are disturbed during the work to the satisfaction of the District Engineer.

16) The utility owner may only remove the control of access fence when approved by the District Engineer. When removal is allowed, the fence must be reinstalled as soon as possible and to the satisfaction of the District Engineer.

17) The utility owner shall comply with the current edition of AASHTO policy set forth in “A Policy on the Accommodation of Utilities within Freeway Right of way” in the installation and maintenance of utility facilities on both fully and partially controlled access facilities.

18) The utility owner shall not service utilities installed solely for operating freeway facilities directly from through traffic lanes or ramps, and the utility owner shall not create a hazard or interfere with the safe and free movement of traffic on the freeway during such utility access and maintenance.

19) The utility owner shall keep the area disturbed by utility construction, or maintenance, to a minimum. The utility owner shall restore all highway right of way to as good or better condition than before. Restoration methods shall conform to the AHTD’s standard specifications.

20) The utility owner shall be responsible for maintaining flow in and restore the grades on any drainage ditches disturbed by their work. Maintenance and restoration work shall be completed to the satisfaction of the District Engineer.

21) The utility owner shall avoid disturbing existing highway drainage pipes, inlets, and other structures. Any structures disturbed shall be restored to the satisfaction of the District Engineer.

22) The utility owner shall be responsible for developing and implementing any Storm Water Pollution Prevention Plan (SWPPP) and obtaining a National Pollutant Discharge Elimination System (NPDES) Permit from the Arkansas Department of Environmental Quality (ADEQ) necessitated by their work. The utility owner shall indicate on the plans whether or not a SWPPP was prepared. If a SWPPP was prepared, the utility owner shall indicate if the project is permitted as an Automatic Coverage Site or is a Large Construction Site. If a Notice of Termination (NOT) is furnished to ADEQ when the work is completed, the utility owner shall provide a copy to the District Engineer.

23) The utility owner shall ensure that on-going work and completed work complies with the Americans with Disabilities Act.

24) The utility owner shall ensure that all work is conducted in a manner to accommodate and protect pedestrians.

25) The utility owner shall not begin work on any buried utility line crossing under a highway bridge until all material and equipment are available for immediate use. When the work is started, it must be completed as soon as practicable. Trenches under highway bridges shall not be left open when work is not being performed.

26) The utility owner shall be responsible for placement of their longitudinal lines in a manner to allow placement of other parallel utility lines. If longitudinal lines are not installed parallel to right of way lines and other utilities, the AHTD may require their realignment to facilitate placement of other utilities.

27) The utility owner shall restore any rock or concrete riprap disturbed by their operation as soon as practicable. The riprap shall be restored to equal or better condition to the satisfaction of the District Engineer.

2.6 MEDIANS AND FRONTAGE ROADS

1) No utility work shall be performed in the median of any highway without prior approval of the AHTD. All work must be accomplished in accordance with any special conditions required by the District Engineer.

2) Longitudinal utility installations will not be allowed in medians.

3) Longitudinal installations of underground utilities will not normally be allowed in the area between the frontage road and main lanes. Exceptions may be considered upon recommendation of the District Engineer based on extenuating circumstances and where a frontage road is widely separated from the main lanes, provided there is sufficient clear zone width from the edges of both traveled ways.

4) Poles, guys, or other related facilities shall not be located in a highway median or between the main lanes and frontage roads. Exceptions may be considered, upon the recommendation of the District Engineer, for crossings of wide medians and where a frontage road is widely separated from the main lanes, provided there is sufficient clear zone width from the edges of both traveled ways.

3 UNDERGROUND INSTALLATIONS

3.1 CROSSINGS

A. GENERAL

1) Crossings may be encased or uncased dependent upon the needs and conditions identified by the type of highway facility, utility type, utility owner, or the AHTD.

2) The AHTD encourages, and will require when determined necessary by the District Engineer, utility owners to extend encasements from right of way line to right of way line.

3) Crossings shall be avoided at deep cuts, bridge footings, retaining walls, cross drains, or at any other location where attaining the minimum depth of cover as required by this Policy would be difficult.

4) Crossings shall be perpendicular to the traffic lanes of the highway where practicable. Utility owners shall submit justification, satisfactory to the AHTD, for any utility crossing not perpendicular to the highway alignment.

B. CROSSING METHODS

1) Crossings may involve boring, tunneling, or open cut depending on the highway and conditions.

2) Boring shall be by the directional bore method.

3) Dry bores shall be conducted in a manner consistent with industry accepted practices that minimize annular voids and over-breaks and protect the integrity of ground cover, surfaces and structures. In no case, shall overbore exceed 5 percent of the pipe diameter. The use of water under pressure greater than 10 pounds per square inch to jet a hole ahead of the bit is not permitted.

4) Wet boring is not allowed.

5) Bore pits shall be placed outside the highway right of way when practical, otherwise bore pits shall be placed on the edge of the highway right of way as far from the outer edge of the shoulder as possible.

6) Bore pits shall be located and constructed in such a manner, as to not interfere with footings of highway structures, safe roadside clearance, pedestrian passage, or traffic operations. If necessary, shoring shall be utilized.

7) Excavation for bore pits shall not intrude into the flow line of parallel ditches or the slope of embankment sections.

8) Permanent crossings of the highway through drainage structures (box or pipe culverts) are not permitted.

C. ENCASED CROSSINGS

1) Encasements shall be designed to support the load of the highway and superimposed loads thereon and, as a minimum, shall equal the structural requirements for highway drainage facilities. Encasements shall be composed of materials of satisfactory durability under conditions to which they may be subjected.

2) Encasements shall have a minimum cover of forty-eight (48) inches measured vertically from the flow line of parallel ditches or sixty (60) inches measured vertically from the highway surface; whichever provides the greater cover.

~~(b) sections. The Department encourages casing to extend from right-of-way line to right-of-way line where~~On non-controlled access highways, encasements should extend from right of way line to right of way line, as practical, and may be required ~~in certain instances. (See Figure 9 , page 41)~~ by the District Engineer in some instances. As a minimum, encasements shall extend six (6) feet beyond the toe of the slope in any embankment section,

~~2. UNCASED:~~

~~(a) Uncased carrier pipe shall provide sufficient strength to with-stand the internal design pressure and the dead and live loads of the pavement structure and traffic. Additional protective measures should include:~~

~~(1)Greater depth of cover (minimum of four (4) feet).~~
~~(2)Increased wall thickness/higher strength steel.~~
~~(3)Adequate coating and wrapping.~~
~~(4)Radiograph testing of welds.~~
~~(5)Hydrostatic testing.~~
~~(6)Cathodic protection~~
~~(7)Other measures as required by Title 49 CFR, Part 192, or Part 195.~~

(b) Length of additional protection should extend the full width of the right-of-way but as a minimum 36 inches beyond the flowline of parallel ditches, toe of foreslope or back of the curb as applicable for the highway section. (See Figure 10, Page 42).

3. ALLIED MECHANICAL PROTECTION

~~When existing underground utility facilities are permitted to remain in place, suitable bridging, concrete slabs, or other appropriate measures may be used for protection, when by reason of shallow bury the facility may be vulnerable to damage from highway construction or maintenance operations. (See Figure 12, Page 44 and Figure 13, Page 45).~~

4. CROSSING METHODS

(a)The angle of crossing should be as near to normal to the highway alignment as practical.

(b)Crossings may be made by boring, jacking, (if less than three (3) inches) tunneling, or open cut.

(c)Boring shall be by the Dry Bore method or directional bore. Wet boring is not permitted.

(1) Dry bores should be augered progressively ahead of the leading edge of the advancing pipe as spoil is augered or mucked back through the pipe. Annular void and over-breaks should be minimized by having cutterhead sized closely to pipe diameter and the pipe advanced with cutterhead in close proximity. Overbore should not exceed 5 percent of the pipe diameter.

(2). Wet Boring as defined for the purpose of this policy is the use of water, under high pressure, to jet a hole ahead of the bit.

(d)Bore pits should be placed outside the highway right-of-way when practical, otherwise bore pits should be placed on the edge of the highway right-of-way as far from the outer edge of the shoulder as possible. Bore pits shall be located and constructed in such a manner, as to not interfere with footings of highway structures safe roadside clearance or traffic operations. If necessary, shoring will be utilized.

(e)Crossings of the highway through drainage structures (box or pipe culverts) are not permitted.

5. OPEN CUT

(a) Cutting of paved highways is not permitted except under certain circumstances. Conditions where open cuts of the pavement may be permitted are:

(1)Utility adjustments made for a highway reconstruction project.

(2)Urban highways where longitudinal lines are located under the pavement.

(3)When it is determined by the Department that boring is not possible.

(b) Cutting of gravel highways may be permitted.

6. BEDDING AND BACKFILL (Under existing or proposed roadway)

(a)Bedding shall be placed to a depth of six (6) inches or half the diameter of the pipe whichever is the least.

(b)Backfill shall be placed in four (4) inches layers, loose measurement, each compacted by mechanical tamping with controlled moisture. (See Figure 8, Page 40)

(c)Bedding and backfill shall consist of fine granular material free of lumps, clods, stones or other debris.

(d)Consolidation of backfill by saturation or ponding with water shall not be permitted.

(e)Backfill for bore pits shall be placed in eight (8) inch layers, loose measurement, thoroughly compacted to match grade and density equal to or exceeding the surrounding undisturbed soil.

302. LONGITUDINAL TRENCHING AND BACKFILL

1.Utility locations parallel to the pavement should be placed at/or adjacent to the right-of-way line to minimize interference with highway operations. As a maximum lateral location shall be no more than five (5) feet from right-of-way line unless otherwise approved by the Utilities Section. The locations of all longitudinal installations shall be reviewed by the Department to ensure that the proposed utility facilities will not interfere with existing or planned highway facilities or with highway maintenance and operation. (See Figure 2, page 34)

2.Trenches normally should have vertical sides where soil and depth conditions permit, and should have a maximum width of outside diameter of pipe plus two (2) feet. Adequate measures must be taken to prevent cave-ins in accordance with OSHA regulations.

3.Backfill of longitudinal trenching shall be placed in .eight (8) inch layers, loose measurement, and compacted to densities equal to that of the surrounding soil. (See Figure 11, page 43)

4.Grade on all highway drainage ditches must be maintained and erosion control provided where necessary as specified by the Department's District personnel. Aggregate, sod or surfacing shall be replaced or restored to its original or equivalent condition to the satisfaction of the District personnel.

303. GAS AND LIQUID PETROLEUM PIPELINES

1. DEPTH OF COVER

Only distribution lines providing natural gas service will be permitted longitudinally within the highway right-of-way and shall have a minimum depth of cover of 30 inches. Longitudinal installations of transmission type facilities will not be permitted.

2. CROSSINGS

(a)Encased pipeline crossings shall have a minimum depth of cover of 36 inches below the ditches or 42 inches below the top of highway subgrade whichever gives the greater cover. Casing encasement pipe shall extend a minimum of six (6) feet beyond the toe of slope of embankment sections and a minimum of six (6) feet beyond the bottom of existing ditches (flowline) or back of curb in curbed sections. The Department encourages casings to extend from right-of-way line to right-of-way line where practical, and may be required required in certain instances. (See Figure 9 , page 41)

(b)Uncased pipeline crossings shall have a minimum depth of cover of 48 inches below the ditches or the top of highway subgrade whichever gives the greater cover. (See Figure 10, Page 42)

(c)All gas service lines installed on highway right-of-way (crossings included) must **be** owned and maintained by the utility owner; therefore, all meters must be set on the same side of the highway as the customer.

3. VENTS

One or more vents shall be provided for each casing or series of casings. For casings longer than 1 50 feet vents should be provided at both ends. On shorter casing a vent should be located at the higher end with a marker placed at the lower end. Vents shall be placed at the right-of-way line immediately above the pipeline, situated to not interfere with highway maintenance or be concealed by vegetation. Ownership of the lines shall be clearly shown on a sign attached to the vent pipe.

4. MARKERS

~~The utility company shall place a readily identifiable and suitable marker at each right-of-way line where it is crossed by any gas or liquid~~

petroleum line except where marked by a vent. Ownership of lines shall be clearly shown on a sign attached to the marker.

5.APPURTENANCES

Above ground appurtenances such as regulators, etc. must be located outside the highway right-of-way.

6.VALVE BOXES

Valve box covers must be flush with the ground or pavement surface as applicable.

7.METERS

Customer meter settings must be located outside the highway right-of-way, and must be set on the same side of the highway as the customer.

304. WATERLINES

1. DEPTH OF COVER

Longitudinal waterline installations on highway right-of-way shall have a minimum depth of cover of 30 inches.

2. CROSSINGS

(a)Encasement is required on all waterlines (including services) crossing the highway and shall have a minimum depth of cover of 36 inches below the ditches or 42 inches below the top of highway subgrade, whichever gives the greater cover. Casing/encasment pipe shall extend a minimum of six (6) feet beyond the toe of slope of embankment sections and a minimum of six (6) feet beyond the bottom of existing ditches (flowline) or back of curb in curbed sections. The Department encourages casings to extend from right-of-way line to right-of-way line where practical, and may be required in certain instances. (See Figure 9 , page 41)

(b)All water service lines installed on highway right-of-way (crossings included) must be owned and maintained by the utility owner; therefore, all meters must be set on the same side of the highway as the customer.

3. MARKERS

A marker bearing the name of the utility owner shall be placed at each

right-of-way line where it is crossed by a waterline two (2) inches or larger in diameter. Markers are not required for service line crossings. Markers for longitudinal lines must be located at the right-of-way line.

4.METERS

Customer meter settings must be located outside the highway right-of-way, and must be set on the same side of the highway as the customer.

5.VAULTS

It is preferable that any appurtenances requiring a vault such as master meters, pressure reducers, etc. be located outside the highway right-of-way.

6.FIRE HYDRANTS

In rural areas fire hydrants or blow-off valves shall be placed at right-of-way line, but in no case shall they be placed in the Roadway Cross Section (See Figure 1, Page 33). In urban areas fire hydrants should be placed at the right-of-way line but shall not be placed closer than five (5) feet to the curb . (See Figure 7, Page 39).

7.VALVE BOXES

Valve box covers must be flush with the ground or pavement surface as applicable.

305. SANITARY SEWER LINES

1. DEPTH OF COVER

(a)Longitudinal sewer lines (gravity flow and force mains) installed on highway right-of-way shall have a minimum depth of cover 30 inches.

(b)Gravity flow and force main sewer line crossings shall have a minimum depth of cover of 36 inches below the ditches or 42 inches below the top of highway subgrade, whichever gives the greater cover.

2. CROSSINGS

~~(a) Lines to be operated under pressure (force mains) and those composed of materials not conforming to material or depth of cover requirements~~

herein shall be encased. (Casing/encasement pipe shall extend a minimum of six (6) feet beyond the toe of slope of embankment sections and a minimum of six (6) feet beyond the bottom of existing ditches flowline) or back of curb in curbed sections. The Department encourages casings to extend from right-of-way line to right-of-way line where practical, and may be required in certain instances. (See Figure 9 , page 41)

(b)Gravity flow lines that can be installed by open trench across proposed highway construction areas, or lines to be bored across existing highways will not require encasement if other conditions herein are met.
(See Figure 10, Page 42)

(c)All sewer service lines installed on highway right-of-way (crossings included) must be owned and maintained by the utility owners.

3. MANHOLES

(a)Manholes on sewer line crossings preferably should be placed outside the highway right-of-way. If this is not feasible, manholes may be permitted on highway right-of-way provided they are located at or near the right-of-way line and clear of the of the drainage ditch.
(See Figure 4, Page 36 and Figure 5, Page 37)

(b)In no case shall manholes be placed or permitted to remain in the pavement or shoulders of high volume roadways. Exceptions may be allowed at those locations on non-controlled access highways in urban areas where necessary for for existing lines which may be permitted to remain in place under existing or proposed roadways. Manholes may remain in place or be installed under traffic lanes of low volume roadways in municipalities provided measures are taken to minimize such installations and to avoid their locations at intersections as much as possible.

*(c)*All manhole covers shall be installed flush with the ground and/or pavement surface, whichever is applicable. Manholes shall have sufficient structural capacity'to withstand vehicular loading. *(AHTD Current Standards)*

(d) Lift stations shall not be permitted on highway right-of-way.

306. UNDERGROUND ELECTRIC LINES

1. DEPTH OF COVER

(a)Longitudinal electric lines on highway right-of-way shall have a minimum cover of 30 inches.

(b)Electric lines crossing the highway shall have a minimum cover of 36 inches below the ditches or 42 inches below the top of highway subgrade, whichever gives the greater cover.

2. CROSSINGS

(a)Encasement shall be provided under center medians and from top of backslope to top of backslope for cut sections or 36 inches beyond the toe of slope for fill sections, or back of curb of all roadways including side streets. When crossing beneath the embankment of an overpass structure the encasement shall extend six (6) feet beyond the toe of slope or the top of backslope whichever is applicable. Encasement may be omitted under center medians where the width is appreciably greater than normal rural standards. Casing/encasement pipe shall extend a minimum of six (6) feet beyond the toe of slope of embankment sections and a minimum of six (6) feet beyond the bottom of existing ditches (flowline) or back of curb in curbed sections. The Department encourages casings to extend from right-of-way line to right-of-way line where practical, and may be required in certain instances. (See Figure 9 , page 41)

(b)Existing lines under roadways in urban areas and low-volume highways may be be permitted to remain in place without encasement or extension of encasement if they are adequately protected either by extra depth or other means. (See Figure 12, page 44 and Figure 13, page 45

3. MARKERS

(a)A marker bearing the name of the utility owner shall be placed at each right-of-way line where it is crossed by an underground electric line.

(b)Markers for longitudinal lines must be located at the right-of-way line.

4. VAULTS

~~(a) It is preferable that electric vaults be located outside the highway right-of-way. When conditions warrant, electric vaults may be permitted within highway right-of-way.~~

(b)Straight line vaults are the only type normally permitted within the right-of-way. Overall dimensions should be no larger than necessary to hold the equipment involved and for safety standards to be assured for maintenance personnel.

(c)The top of the vault shall have a minimum cover of four (4) feet below the ground surface. All manhole covers shall be installed flush with the ground or pavement surface, whichever is applicable. Manholes shall have sufficient structural capacity to withstand vehicular loading. (AHTD Current Standards) (See Figure 3, page 35)

5.LONGITUDINAL

Distance from the right-of-way line shall be no more than five (5) feet unless otherwise approved by the Utilities Section. On highways with frontage roads, such installation will be located between the frontage roads and the right-of-way line.

6.APPURTENANCES

(a)Above ground appurtenances installed as part of an underground electric line shall be located at or near the right-of-way line.

(b)Electric pad mounted transformers shall not be placed on highway right-of-way.

307. UNDERGROUND COMMUNICATIONS LINES

1. DEPTH OF COVER

(a)Longitudinal communications lines shall have a minimum depth of cover of 30 inches.

(b)Communication lines crossing the highway shall have a minimum depth of cover of 36 inches below the ditches or 42 inches below the top of highway subgrade, whichever gives the greater cover.

2. CROSSINGS

(a) Lines crossing highways do not require encasement except where in the judgment of the Department such encasement is necessary for the protection of the highway facility. Consideration should be given to encasement or other suitable protection for any communication facilities (a) with less than minimum bury, (b) near footings of bridges or other highway structures, or (c) near other locations where there may

be hazards.

(b)When the installation of the line is to be accomplished by boring a hole the same same or about the same diameter as the line and pulling it through, encasement is not necessary. Where such conditions cannot be met, encasement should be provided. The annular void between the drilled hole and the line or casing should be filled with a satisfactory material to prevent settlement of any part of the highway facility over the line or casing.

(c)Encasement shall be provided under center medians and from top of backslope to top of backslope for cut sections, or 36 inches beyond the toe of slope for fill sections, or back of curb of all roadways including side streets. When crossing beneath the embankment of an overpass structure the encasement shall extend six (6) feet beyond the toe of slope or the top of backslope, whichever is applicable. Encasement may be omitted under center medians where the width is appreciably greater than normal rural standards. Casing/ encasement pipe shall extend a minimum of six (6) feet beyond the toe of slope of embankment sections and a of six (6) feet beyond the bottom of existing ditches (flowline) or back of curb in curbed sections. The Department encourages casings to extend from right-of-way line to right-of-way line where practical, and may be required in certain instances. (See Figure 9 , page 41)

(d)Existing lines under roadways in urban areas and low-volume highways may be permitted to remain in place without encasement or extension of encasement if they are adequately protected either by extra depth or other means. (See Figure 12 page, 44 and Figure 13, Page 45)

3. MARKERS

(a)A marker bearing the name of the utility owner shall be placed at each right-of-way line where it is crossed by an underground communication line.
(b)Markers for longitudinal lines must be located at the right-of-way line.

4. LONGITUDINAL

(a)Lines may be placed by plowing or open trench method and shall be located on uniform alignment as near as practical to the right-of-way line.

~~(b)Distance from the right-of-way line shall be no more than five (5) feet unless otherwise approved by the Utilities Section. On highways~~

with frontage roads, such installation will be located between the frontage roads and the right-of-way line.

5.APPURTENANCES

Above ground pedestals or other appurtenances installed as part of an underground communication line shall be located at or near the right-of-way line.

6.MANHOLES

(a)Manholes shall be limited to those necessary for maintenance. In no case shall manholes be placed or permitted to remain in the pavement or shoulders of high volume roadways. Exceptions may be allowed at those locations on noncontrolled access highways in urban areas where necessary for existing lines which may be permitted to remain in place under an existing or proposed roadway. Manholes may remain in place or be installed under traffic lanes of low volume roadways in municipalities, provided measures are taken to minimize such installations and to avoid their locations at intersections as much as possible. Manholes shall have sufficient structural capacity to withstand vehicular loading (AHTD Current Standards).

(b)To conserve space within the right-of-way for highway and other utility services manhole dimensions should be the minimum acceptable for good engineering and safety standards. Manhole covers shall be installed flush with the ground and/or pavement surface whichever is applicable. The top of the roof of the manhole should be four (4) feet below ground level. If this depth cannot be achieved, sufficient data must be submitted to the Utilities Section for review and special consideration. (See Figure 3, page 35)

SECTION 4

OVERHEAD UTILITY INSTALLATIONS

401. POWER AND COMMUNICATIONS LINES

1. TYPE OF CONSTRUCTION

~~(a)Longitudinal lines on the right-of-way shall be limited to single pole construction. joint use single pole construction is suggested and is required where practical.~~

~~(b)When an existing or proposed utility crossing is supported by "H" frames, towers, etc., the same type structures may be utilized for the crossing provided all other requirements herein are met.~~

2.VERTICAL CLEARANCE

The minimum vertical clearance for overhead communication and power lines above the highway shall not be less than 18 feet. Greater height may be required by the National Electric Safety Code or any other regulatory agencies having jurisdiction.

3.LOCATION

(a)In rural areas and at uncurbed sections in urban areas, poles supporting longitudinal lines shall be located at/or near the right-of-way line. (See Figure 2, 2, page 31). At the option of the Department this distance may be varied at short breaks in the right-of-way. At curbed sections in urban areas, poles shall be be located a minimum of five (5) feet behind the roadway curbs and preferably adjacent to the right-of-way line. (See Figure 6, page 38.)

(b)Guy wires placed within the right-of-way shall be held to a minimum and should normally be in alignment with the pole line. Push braces and guy guy wires shall not be installed from the pole toward the roadway. When special conditions warrant, exceptions may be made by the Department when it is determined that such guying installations do not compromise either the safety of the traveling public or maintenance of the highway right-of-way.

(c)At crossings, no poles will be permitted in the center median of any high-way. Poles may be placed more than one (1) foot inside the right-of-way when necessary to maintain maximum span distances provided the proposed locations would not violate the intent of this policy.

(d)As a general rule, overhead power and communication line crossings at bridges or grade separation structures should be avoided. If rerouting the line completely around the structure and approaches is not feasible, a minimum horizontal distance and/or minimum vertical clearance should be provided to insure adequate safety for construction and maintenance operations of the structure.

SECTION 5

INSTALLATIONS ON HIGHWAY STRUCTURES

501. HIGHWAY STRUCTURES

~~(a) Longitudinal lines on the right-of-way shall be limited to single pole construction. Joint use single pole construction is suggested and is required where practical.~~

~~(b) When an existing or proposed utility crossing is supported by "H" frames, towers, etc., the same type structures may be utilized for the crossing provided all other requirements herein are met.~~

2.The attachment of utility lines to bridges and overpass structures is discouraged, as they could materially affect structural characteristics, the safe operation of traffic, the efficiency of maintenance, and the appearance of the structure. Therefore, when it is feasible and reasonable to locate elsewhere, attachment to structures will not be allowed.

2. When other arrangements for utility lines to span an obstruction are not feasible, the Department may consider an attachment. Each attachment will be considered on an individual basis and permission to attach will not be considered as establishing a precedent for granting of subsequent requests. The following guides are established for attachment of utilities tostructures:

(a)When a pipeline is encased, the casing shall be effectively opened or vented at each end to prevent possible build up of pressure and to detect leakage of gases or fluids.

(b)Shut-off valves, preferably automatic, shall be installed in lines at or near the ends of structures unless segments of the lines can be isolated by other sectionalizing devices within a reasonable distance.

(c)When a casing is not provided for a pipeline, additional protective measures shall be taken, such as employing a higher factor of safety in the design, construction and testing of the pipeline than would normally be required for cased construction.

(d)Communication and electric power lines shall be suitably insulated, grounded and preferably carried in protective conduit or pipe from the point of exit from the ground to re-entry. The cable should preferably be carried to a manhole located beyond the backwall of the structure.

(e)Carrier and casing pipe for other utilities should be suitably insulated from electric power line attachments.

(f)All attachments will be made in such manner as not to interfere with the stream flow, highway traffic or routine maintenance.

(g)Electrical transmission lines (35 KV or higher) will not be permitted on any bridge or highway structure.

(h)The utility owner shall provide for the lineal expansion and contraction of its facility due to temperature differentials

between the utility facility and the structure.

(I) The utility owner shall be required to provide for restoration; (i.e. insurance) or repair any portion of a bridge, structure, or other highway facility disturbed or damaged by utility installation, maintenance or use.

(j) Utility mountings shall be of a type, design, and material which will effectively muffle vibration noise.

(k) Any maintenance, servicing or repair of utility lines shall be the responsibility of the utility owner.

3.

3. When a utility tunnel within a bridgestructure is utilized, mutually hazardous transmittants, such as fuels and electric energy, must be isolated by compartments or separate encasements.

4.When a utility owner requests permission to attach a pipeline to a proposed bridge and the added load is sufficient to require an increase in the strength of the structure, or use of more costly materials or type of construction, the utility owner is required to pay for the increase in cost.

5.When a utility owner requests permission to attach a pipeline to an existing bridge, sufficient information must be furnished to allow a stress analysis to determine the effect of the added load on the structure. Other details of the proposed attachment as they affect safety and maintenance should also be presented. If the bridge structure is not of adequate strength to carry the increase weight or forces with safety, permission will not be granted.

6.The Department assumes no responsibility to or for the utility owner in any respect in connection with a bridge attachment. The Department may cancel any permit for bridge or highway structure attachment for cause, allowing the utility owner a reasonable time to make arrangements to continue utility service. The utility owner shall assume all costs associated with such relocation and/or removal.

7.The utility owner may discontinue the use of the highway structure at any time.

8.Any utility line so abandoned must be removed by the utility owner. If the owner fails to remove the abandoned utility facilities the Department may do so at the expense of the utility owner.

9.The Department must be notified prior to the abandonment and removal of the utility line.

~~SECTION 6~~

~~IRRIGATION AND DRAINAGE FACILITIES~~

~~601. GENERAL~~

~~1.Irrigation and drainage facilities installed across any highway right-of-way shall be designed and constructed in accordance with Departmental standards for highway culverts or bridges. All such crossings shall extend the full width of the right-of-way and have a minimum of 36 inches of cover below the flowline of the highway drainage ditches.~~

~~2.Longitudinal ditches and canals which would closely parallel the highway shall not be permitted nor will any appurtenances be permitted within the clear recovery area which would constitute a hazard to traffic.~~

~~3.Extreme care shall be exercised in the location of levee roads or ditch rider roads where they intersect the highway to avoid establishing any hazards at points of critical sight distance.~~

~~SECTION 7~~

~~PERMIT PROCEDURES~~

~~701. APPLICATION FOR PERMITS~~

~~1.Under Arkansas Statutes utility owners are required to secure a permit for any construction, maintenance or related work on State Highway rights-of-way or property. property.~~

~~2.Utility permit applications must be submitted to the appropriate Highway District Permit Officer. The written application must include the following:~~

~~(a) Four (4) sets of plans with crossing profile, when applicable.~~

~~(b)Type and description of the facility.~~

~~(c)Location with reference to highway stationing, or well known permanent landmarks, (i.e. road or street intersection, bridge, etc.)~~

~~(d)The measured distance from the right-of-way line, the centerline and the edge of pavement of the highway.~~

~~(e)A traffic control plan.~~

~~(f)See Figures 1 - 18, Pages 33 - 50~~

~~3. All permits shall constitute a binding contract; therefore, proxy applications, verbal, or unsigned requests will not be valid.~~

~~**702.DEPOSIT OR BOND**~~

~~A deposit or bond to guarantee restoration of highway rights-of-way property is required prior to the issuance of~~the flow line of any parallel ditches, or back of any curb as applicable for the highway section.

3) Encasement shall be provided under medians and the area between frontage roads and the main lanes.

4) Encased crossings of partially controlled or fully controlled access highways shall be encased the full width of the control of access.

5) All crossings involving frontage roads shall be encased between the control of access and frontage road and the pipe shall extend a minimum of six (6) feet beyond the toe of the slope in any embankment section, the flow line of any parallel ditch, or the back of any curb as applicable on the side of the frontage road opposite the main lanes.

D. UNCASED CROSSINGS

1) Uncased carrier pipe shall provide sufficient strength to withstand the internal design pressure and the dead and live loads of the pavement structure and traffic. Additional protective measures should include:

a) Increased wall thickness/higher strength material

b) Adequate coating and wrapping

c) Radiograph testing of welds

d) Hydrostatic testing

e) Cathodic protection

f) Other measures as required by 49 CFR, Part 192, or Part 195

2) The minimum cover over the uncased carrier pipe shall be forty-eight (48) inches measured vertically from the flow line of parallel ditches or sixty (60) inches measured vertically from the highway surface, whichever provides the greater cover.

3) When existing underground facilities are permitted to remain in place, suitable bridging, concrete slabs, or other appropriate measures shall be used for protection, when by reason of shallow bury the facility may be vulnerable to damage from highway construction or maintenance operations.

E. OPEN CUT OF PAVED SURFACES

Open cutting of paved highways is not permitted except under certain circumstances. Conditions where open cuts of paved highways may be considered are:

a. Utility relocations related to a highway reconstruction project.
b. Urban highways where longitudinal lines are located under the pavement.
c. Crossings of gravel highways.
d. When the District Engineer determines that boring is not possible or feasible.

F. TEMPORARY CROSSINGS

1) The placement of a temporary line to cross a highway right of way shall be permitted through an encasement under the roadway installed in accordance with this Policy, or it may be placed through an existing bridge opening or through an existing drainage structure with a minimum of twenty (20) feet of clear waterway opening if approved by the District Engineer.

2) An exception may be granted to place a temporary line through an existing drainage structure with less than twenty (20) feet of clear waterway opening providing a drainage analysis is made by a qualified individual and submitted by the utility owner. The decision

whether to allow the use of the drainage structure for a temporary crossing will be made by the AHTD based on the impact of the drainage analysis.

3) Regardless of size, if the AHTD allows the use of any existing bridge opening or highway drainage structure for the placement of a temporary line, the utility owner will be required to assume all responsibility for future damages caused by the placement of the line.

3.2 LONGITUDINAL INSTALLATIONS

1) Underground utilities installed parallel to the pavement should be installed at/or adjacent to the right of way to minimize interference with highway operations.

2) Underground utilities, such as power cable, telephone cable, water, sewer, and gas shall be installed within the outer ten (10) feet of the right of way. Placement of utility lines more than ten (10) feet from the right of way line may be considered upon recommendation by the District Engineer based on extenuating conditions and approval by the Right of Way Division Head. However, longitudinal installations shall not be within the clear zone or ditch lines of the roadway.

3) Longitudinal utilities shall be located on uniform alignment as near as practicable to the right of way line and/or parallel with utility lines and outside the clear zone.

4) Longitudinal utilities shall have a minimum depth of cover of thirty (30) inches measured vertically over the utility line.

5) Longitudinal utilities may be installed by trenching, plowing, or boring. Joint trenching or plowing of underground facilities is encouraged.

6) Trenches normally should have vertical sides where soil and depth conditions permit, and should have a maximum width of the outside diameter of the line, pipe or conduit plus two (2) feet. Adequate measures must be taken to prevent cave-ins.

7) Backfill shall be compacted to densities equal to that of the surrounding soil.

8) Grade on all highway drainage ditches must be maintained, and erosion control provided where necessary, as specified on the plans or as required by the District Engineer. Aggregate, sod or surfacing shall be replaced or restored to its original or equivalent condition to the satisfaction of the AHTD.

9) On partially controlled access highways, individual service connections will not be permitted unless no other reasonable alternatives exist.

10) On fully controlled access highways, longitudinal installations shall not be permitted with the exception of fiber optic telecommunication lines installed under a Shared Resource Agreement.

11) Markers bearing the name of the utility owner must be placed at the right of way line at no greater than 1,000 foot intervals for the full length of the installation.

3.3 APPURTENANCES

1) Appurtenances shall be limited to those necessary for installation and maintenance of underground lines.

2) All above ground appurtenances, including pedestals, manholes, vents, drains, rigid markers, valve pits, and regulator pits, shall be located outside the clear zone and as close to the right of way line as possible.

3) Service meters, master meters, cabinets, meter pits, pressure reducers, lift stations, pad mounted transformers, sprinkler pits, etc. shall not be located within the highway right of way. Meters shall be located on the same side of the highway as the customer being served.

4) Utility accesses and valve covers for access to buried utilities shall be located outside the shoulder of the highway.

5) Manholes, valve boxes, valve pits, etc. shall be installed so that their uppermost surfaces are flush with the adjacent undisturbed surface and shall have sufficient structural capacity to withstand vehicular traffic.

6) Manholes shall not be placed or allowed to remain in the pavement or shoulders of high volume roadways. Exceptions may be allowed at those locations on non-controlled access highways in urban areas where necessary for access to existing lines allowed to remain in place under existing or proposed roadways. Manholes may be placed or allowed to remain in the pavement or shoulders of low volume roadways in urban areas provided measures are taken to minimize such installations. Placement of manhole installations should be

avoided in the pavement at highway intersections. Manholes shall not be located in a wheel path.

7) Manholes/handholes vary as to size and shape depending on the type of utility they serve. To conserve space, their dimensions should be the minimum acceptable by good engineering and safety standards. In general, the only equipment to be installed in manholes/handholes located on highway right of way is that which is essential to the normal operation of the utility, such as cable splices, relays, etc. Other equipment, pumps, etc. should be located outside the limits of the highway right of way. All manhole/handhole covers shall be flush with the ground or pavement surface, whichever is applicable. All manholes/handholes shall be designed with sufficient structural capacity for vehicular loading. Where soil conditions require, outside forms shall be used.

3.4 BEDDING AND BACKFILL

1) Bedding and backfill shall consist of fine granular material free of lumps, clods, stones or other debris.

2) Backfill shall be compacted by mechanical tamping with controlled moisture.

3) Bedding shall be placed to a depth of six (6) inches or half the diameter of the pipe whichever is the least.

4) Backfill for bore pits shall be thoroughly compacted to match grade and density equal to or exceeding the surrounding undisturbed soil.

5) Consolidation of backfill by saturation or ponding with water shall not be permitted.

3.5 TYPES OF UNDERGROUND UTILITIES

This subsection provides additional design and installation requirements for the specific types of underground utilities.

A. GAS AND LIQUID PETROLEUM PIPELINES

1) Only distribution lines providing natural gas service are permitted longitudinally within the highway right of way.

2) Crossings for gas or liquid petroleum pipelines may be encased or uncased.

3) One or more vents shall be provided for each encasement pipe or series of encasement pipes. For encasement pipes longer than 150 feet, vents shall be provided at both ends. On shorter encasement pipe, a vent should be located at the higher end with a marker placed at the lower end. Vents shall be placed at the right of way line immediately above the pipeline, situated to not interfere with highway maintenance or be concealed by vegetation. Ownership of the lines shall be clearly shown on a sign attached to the vent pipe.

4) Markers, bearing the name of the utility owner, shall be placed at each right of way line where gas or petroleum lines crosses except where marked by a vent.

B. WATERLINES

Only water service lines (including crossings) owned and maintained by the utility owner shall be installed within the highway right of way.

1) Crossings for waterlines, including services, must be encased.

2) Markers, bearing the name of the utility owner, shall be placed at each right of way line where a waterline two (2) inches or larger in diameter crosses.

3) In open shoulder areas, fire hydrants or blow-off valves shall be placed as near to the right of way line as practical, but shall not be placed in the roadway cross section.

4) In curbed roadway areas, fire hydrants shall be placed as near to the right of way line as practical but shall not be placed closer than five (5) feet to the curb.

C. SANITARY SEWER LINES

Only sewer lines (including crossings) owned and maintained by the utility owner shall be installed within the highway right of way.

1) Sewer lines operated under pressure (force mains) and those composed of materials not conforming to material or depth of cover requirements of this Policy shall be encased.

2) Markers, bearing the name of the utility owner, shall be placed at each right of way line where a sewer line six (6) inches or larger in diameter crosses.

3) Gravity flow sewer lines installed by open trench across proposed highway construction areas, or lines bored across existing highways will not require encasement if other conditions of this Policy are met.

4) Manholes for sewer line crossings should be placed outside the highway right of way. If placement outside the highway right of way is not practical, manholes may be placed in the highway right of way provided they are located at or near the right of way line and out of drainage ditches.

D. UNDERGROUND ELECTRIC LINES

1) Underground electric line crossings shall be encased. An existing facility may be allowed to remain in place under roadways if suitable bridging, concrete slabs, extra depth or other appropriate measures are used for protection.

2) Markers, bearing the name of the utility owner, shall be placed at each right of way line where underground electric lines cross, regardless of size.

3) Vaults for underground electric facilities should be placed outside the highway right of way, if practical. If placement outside the highway right of way is not practical, the following shall apply:

   a) Only straight-line vaults shall be allowed.

   b) Vault dimensions shall be limited to that necessary for equipment and to ensure safety standards for maintenance personnel.

   c) The top of the vault shall be buried a minimum of four (4) feet below the ground surface.

E. UNDERGROUND COMMUNICATIONS LINES

1) Underground communications line crossings may be uncased unless the District Engineer determines encasement or other suitable protection is necessary for the protection of the highway facility under the following conditions:

   a) The minimum depth cannot be attained.

   b) The installation is near bridge or other highway structures.

   c) The installation is near other hazards.

2) When underground communications line crossings are installed by boring, the hole shall be approximately the same diameter as the line and encasement will not be required. If a hole approximately the same diameter as the line cannot be bored, an encasement shall be

provided. The void remaining between the line or encasement and the outer limit of the bored hole shall be filled with a material suitable to prevent settlement of any part of the highway facility over the line.

3) Markers, bearing the name of the utility owner, shall be placed at each right of way line where a carrier line or fiber optic line crosses.

F. FIBER OPTIC TELECOMMUNICATION LINES WITHIN THE CONTROL OF ACCESS

1) Fiber optic telecommunication lines may be installed longitudinally within the control of access on fully controlled access highways only by execution of a Shared Resource Agreement between the utility owner and the AHTD. All conditions for longitudinal installations elsewhere in this Policy shall apply.

2) The utility owner shall not access the work area directly from the main lanes and ramps, except at locations specifically approved by the District Engineer.

3) At locations where the control of access does not coincide with the right of way line, fiber optic telecommunication lines may be installed parallel to the control of access line with the same requirements as for placement along the right of way line.

4) Fiber optic telecommunication lines shall not be installed parallel to the main lanes between the main lanes and ramps.

4 OVERHEAD INSTALLATIONS

1) Overhead utility line supports (poles) shall be located within one (1) foot wherever possible and no more than five (5) feet from the right of way line.

2) Longitudinal utilities shall be located on uniform alignment as near as practicable to the right of way line and/or parallel to utility lines and outside the clear zone. The joint use of pole lines is encouraged and may be required at some locations.

3) The minimum vertical clearance for overhead communication and power lines above all driving surfaces within the highway right of way shall not be less than eighteen (18) feet. Greater height may be required by the National Electric Safety Code or any other regulatory agencies having jurisdiction.

4) Supports for longitudinal installations shall be limited to single pole construction within the right of way and shall not exceed three (3) feet in diameter.

5) On partially controlled access highways, individual service connections will not be permitted unless no other reasonable alternatives exist.

6) The angle of crossing for overhead utility crossings shall be as perpendicular to the highway alignment as practicable.

7) For overhead utility crossings on highways where access is not controlled, all supporting structures and above ground appurtenances shall be located outside the clear zone.

8) For overhead utility crossings on highways with partial and fully controlled access, all supporting structures and above ground appurtenances shall be located outside the highway right of way. Installation and maintenance shall be from frontage roads, crossroads, or streets, whenever practicable, or otherwise from outside the control of access line and preferably outside the highway right of way.

9) Overhead power and communication line crossings above or below the decks of bridges or grade separation structures should be avoided. A crossing may be permitted if alternatives to the crossing are not feasible and adequate minimum horizontal and/or vertical clearances, as determined acceptable by the District Engineer, are provided to ensure adequate safety for construction and maintenance operations.

10) Guy wires installed within the highway right of way shall be held to a minimum and should normally be in alignment with the support pole line. Push braces and guy wires shall not be installed from the pole toward the roadway unless specifically approved by the District Engineer.

5 BRIDGES AND HIGHWAY STRUCTURES

5.1 GENERAL

1) The attachment of utility lines to bridge or highway structures is discouraged, as they could materially affect structural characteristics, the safe operation of traffic, the efficiency of maintenance, and the appearance of the structure. Therefore, when it is feasible and reasonable to locate elsewhere, attachment to a bridge or highway structure will not be allowed.

2) When it is not feasible or reasonable to locate utility lines elsewhere other than attached to a bridge or highway structure, the utility owner may request permission from AHTD to allow the attachment of the utility.

3) If the AHTD determines the bridge or highway structure is not of adequate strength to carry the increased weight or forces resulting from the utility attachment with safety, permission will not be granted.

4) When the added load of a utility attachment to an existing or proposed bridge or highway structure is sufficient to require an increase in the strength of the structure or the use of more costly materials or type of construction, the additional cost shall be paid by the utility owner.

5) Utility facilities shall be attached to bridges in accordance with the current guidelines established by the AHTD Bridge Division available on the AHTD website, http://www.arkansashighways.com.

6) The AHTD assumes no responsibility to or for the utility owner in any respect in connection with a bridge or highway structure attachment. The AHTD may cancel any permit for bridge or highway structure attachment for cause, allowing the utility owner a reasonable time to make arrangements to continue utility service. The utility owner shall assume all costs associated with such relocation and/or removal.

7) Electrical transmission lines (35 KV or higher) will not be permitted on any bridge or highway structure.

8) No vehicles weighing in excess of the legal load, or the load limit posted, and no off road hauling equipment, cranes, or other non-legal highway vehicles or equipment will be

allowed to cross or be placed on any bridge deck without the submittal of an engineering analysis for review by AHTD.

9) No materials will be permitted to be stored or stockpiled on any bridge deck without the submittal of an engineering analysis for review by the AHTD.

10) Each submitted engineering analysis shall be prepared by a Registered Professional Engineer who shall certify the adequacy of all components for the anticipated loads. Inspection records and, when available, design drawings may be obtained from the AHTD for use in the analysis of the structure.

5.2 REQUEST GUIDELINES FOR BRIDGE ATTACHMENTS

1) When other arrangements for utility lines to span an obstruction are not feasible, the AHTD may consider an attachment to a bridge or highway structure. Each attachment will be considered on an individual basis and permission to attach will not be considered as establishing a precedent for granting of subsequent requests. The following guides are established for attachment of utilities to bridges or highway structures:

   a) Sufficient details and information about the proposed attachment shall be furnished to allow a stress analysis to determine the effect of the added load on the structure. Other details of the proposed attachment as they affect safety and maintenance should also be provided.

   b) When a pipeline is encased, the encasement pipe shall be effectively opened or vented at each end to prevent possible build up of pressure and to detect leakage of gases or fluids.

   c) Shut-off valves, preferably automatic, shall be installed in lines at or near the ends of structures unless segments of the lines can be isolated by other sectionalizing devices within a reasonable distance.

   d) When an encasement is not provided for a pipeline, additional protective measures shall be taken, such as employing a higher factor of safety in the design, construction and testing of the pipeline than would normally be required for cased construction.

e) Communication and electric power lines shall be suitably insulated, grounded and carried in protective conduit or pipe from the point of exit from the ground to re-entry. The cable shall be carried to a manhole located beyond the backwall of the structure.

f) Carrier and encasement pipe for other utilities should be suitably insulated from electric power line attachments.

g) All attachments will be made in such manner as not to interfere with the stream flow, highway traffic or routine maintenance.

h) The utility owner shall provide for the lineal expansion and contraction of its facility due to temperature differentials between the utility facility and the structure.

i) Utility mountings shall be of a type, design, and material that will effectively muffle vibration noise.

j) Any maintenance, servicing or repair of utility lines shall be the responsibility of the utility owner.

k) An engineering analysis of the load effects of an attachment on the structure shall be submitted when requested.

l) When a utility tunnel within a bridge or highway structure is utilized, mutually hazardous transmittants, such as fuels and electric energy, must be isolated by compartments or separate encasements.

6 UTILITY PERMITS

6.1 GENERAL

With the exception of District Permits described in Section 6.3.A, the Utilities Section, in cooperation with the District Engineer, is responsible to make all arrangements for the accommodation of utility facilities within AHTD highway right of way. Verbal approvals by the District Engineer will be considered only for emergency or extreme hardship situations.

The AHTD issues three types of utility permits to allow the installation, relocation, maintenance or removal of utility facilities on AHTD highway right of way or property:

- District Utility Permits
- AHTD Utility Permits
- Vegetation Control Permits

6.2 PERMIT APPLICATION AND APPROVAL PROCEDURES

Regardless of the permit type, utility owners are required to secure a permit prior to the commencement of work.

1) A written permit application, including plans, shall be submitted to the appropriate District Engineer. The application and plans shall include, at a minimum, the following:
   a) Two (2) sets of plans with crossing profiles, when applicable. Plans printed on 11x17 sheets are preferable. Plans may be submitted in electronic form utilizing portable document format (PDF), if acceptable to the District Engineer.
   b) Type and description of the facility.
   c) Location with reference to centerline stations from AHTD plans or other well-known permanent landmarks.
   d) The measured distance from the right of way line, the centerline, ditch lines, toe of slopes, and the edge of pavement of the highway.
   e) A traffic control plan.
2) The utility owner shall also comply with the provisions of Section 6.4 or 6.5 of this Policy.
3) All permits shall constitute a binding contract; therefore, proxy applications, verbal, or unsigned requests will not be valid.

6.3 TYPES OF PERMITS

A. DISTRICT UTILITY PERMIT

1) The utility owner may undertake the following work under a District Utility Permit:

- Buried highway crossings, excluding those under bridges, of non-interstate primary and secondary highways that do not involve a pavement cut.
- Aerial crossings of non-interstate highways.
- Buried or aerial longitudinal installations up to one-quarter (¼) mile on non-interstate highways.
- Spot repairs of utility facilities, including emergency repairs. Emergency situations may include pavement cuts.
- Minor work, including pole replacements, pedestal installations, meter taps not requiring pavement cuts, routine maintenance, etc.
- Temporary crossings as described in Section 7.2.

2) Under the District Utility Permit, the District Engineer is responsible to:

- Review plans to ensure proposed utility facilities will not interfere with existing or planned highway facilities or with highway maintenance and operation.
- In the absence of a standing bond as described in Section 6.4, determine the amount of the deposit or bond required.
- Approve the permit.
- Provide inspections as needed to assure that utility installations are done in accordance with the approved permit.
- Make final inspection of the work area restoration and release the permit.

3) A District Utility Permit is valid for a period of four (4) months from the date of issue.

B. AHTD UTILITY PERMITS

1) Any utility work not addressed in Section 6.3.A. will be considered under an AHTD Utility Permit.

2) Under the AHTD Utility Permit the District Engineer is responsible to:

- Review plans to ensure proposed utility facilities will not interfere with existing or planned highway facilities or with highway maintenance and operation.
- In the absence of a standing bond as described in Section 6.4, determine the amount of the deposit or bond required.
- Submit the permit to the Utilities Section for review and approval.
- Provide inspections as needed to assure that utility installations are done in accordance with the approved permit.
- Make final inspection of the work area restoration and recommend release of the permit and deposit or bond, when applicable.

3) An AHTD Utility Permit is valid for a period of twelve (12) months from the date of issue.

C. VEGETATION CONTROL PERMITS

The Utilities Section, in cooperation with the District, the Maintenance Division, and the Environmental Division, is responsible to make all arrangements for the mechanical and chemical vegetation removal on AHTD highway right of way.

Utility owners may obtain permits to remove vegetation by mechanical or chemical methods subject to the following conditions:

- Vegetation control is necessary for the safe and continuous operation of utility facilities within the highway right of way. Vegetation control may be applicable to either underground or overhead utility installations including appurtenances.
- Vegetation control will not be allowed solely to provide visibility to utility facilities. The limits of trimming or removal shall be held to the minimum necessary for maintenance access, to provide for the continued operations of the facility, and to meet governing laws and regulations.
- The utility owner shall perform vegetation control on a periodic basis to preserve the aesthetics of the area and prevent excessive overgrowth.
- The utility owner shall obtain a permit each time vegetation control is to be undertaken.

A Vegetation Control Permit is valid for a period of four (4) months from the date of issue.

In addition to all other requirements and conditions of this Policy, the following shall also apply to vegetation control permits.

1) Mechanical Vegetation Control

a) The utility owner shall trim trees in accordance with normal horticultural standards.

b) The utility owner shall not remove healthy trees having trunks six (6) inches or more in diameter measured twelve (12) inches above the ground without specific approval of the District Engineer.

c) The utility owner shall remove cut vegetation and debris from the highway right of way and shall be responsible for the proper disposal of all cut vegetation and debris.

d) The utility owner shall not burn or bury the cut vegetation and debris within the highway right of way.

e) The utility owner shall cut stumps flush with the ground or grind the stumps to remove them.

f) The utility owner shall re-vegetate areas of bare ground resulting from their operations.

g) The utility owner shall be responsible for developing and implementing any Storm Water Pollution Prevention Plan (SWPPP) and obtaining a National Pollutant Discharge Elimination System (NPDES) Permit from the Arkansas Department of Environmental Quality (ADEQ) necessitated by their work. The utility owner shall indicate on the plans whether or not a SWPPP was prepared. If a SWPPP was prepared, the owner shall indicate if the project is permitted as Automatic Coverage Site or is a Large Construction Site. If a Notice of Termination (NOT) is furnished to ADEQ when the work is completed, the utility owner shall provide a copy to the District Engineer.

h) The utility owner shall assume full responsibility for safeguarding all utilities in the work area during the time of construction and shall notify Arkansas One-Call and have utility facilities located prior to beginning work that would disturb soil.

2) Chemical Vegetation Control

a) The utility owner shall ensure that all requirements of the Arkansas State Plant Board are met in the use and application of chemicals.

b) The utility owner shall ensure that all personnel are licensed or /certified by the Arkansas State Plant Board for the type of herbicide application being utilized.

c) The utility owner may use backpack sprayers or other spot application methods within the highway right of way. Broadcast spraying is not allowed.

d) The utility owner shall cut and trim over-grown vegetation prior to applying chemicals to avoid dead plants taller than six (6) inches remaining. If dead plants taller than six (6) inches result from the chemical application, the utility owner shall immediately trim the plants.

e) The utility owner shall take precautions to avoid overspray from the operation. If overspray results in dead limbs or plants, the utility owner shall use mechanical methods to cut or trim the plants.

f) The utility owner shall utilize only those chemicals, rates of applications, and methods of application approved by the AHTD.

g) The utility owner shall be responsible for developing and implementing any Storm Water Pollution Prevention Plan (SWPPP) and obtaining a National Pollutant Discharge Elimination System (NPDES) Permit from the Arkansas Department of Environmental Quality (ADEQ) necessitated by their work. The utility owner shall indicate on the plans whether or not a SWPPP was prepared. If a SWPPP was prepared, the owner shall indicate if the project is permitted as Automatic Coverage Site or is a Large Construction Site. If a Notice of Termination (NOT) is furnished to ADEQ when the work is completed, the utility owner shall provide a copy to the District Engineer.

h) The utility owner shall not use chemicals within 100 yards of any stream, pond, lake, or garden or within 25 yards of any human habitation or livestock feed lot.

i) The utility owner shall not utilize chemicals in areas where the AHTD has established or is establishing vegetative cover for aesthetic or erosion control purposes.

6.4 STANDING BOND

The AHTD encourages utility owners to more effectively carry out the installation, relocation, maintenance or removal of their utility facilities on AHTD right of way or property, including vegetation control, by maintaining a standing bond based on the number of customers served in the State of ~~permit. The~~Arkansas. The standing bond will be used by the ~~Commission~~AHTD in restoring the highway right of way or property to its former condition if the utility ~~who disturbs the highway fails to do so.~~owner fails to do so. The standing bond must be provided in the name of the utility owner.

~~**ACCEPTANCE OF PERMIT**~~The following standing bond amounts shall apply:

Number of Arkansas customers	Standing bond required
Over 250,000	$250,000
100,000 to 249,999	$100,000
50,000 to 99,999	$50,000
10,000 to 49,999	$25,000
Under 10,000	$10,000

~~1.3~~6.5 DEPOSIT OR BOND

~~Work performed under a permit shall constitute full acceptance of all applicable requirements, laws, rules, regulations and the specific terms and provisions as set forth in or attached to the permit.~~

~~704.TRANSFER OF OWNERSHIP~~

~~If a change in ownership takes place, the new owners shall give written notice of such change to the Utilities Sectionas soon as possible.~~

~~705.RIGHT TO REVOKE~~

~~The Director of Highways is hereby authorized to revoke or annul a permit or agreement, subject to giving the utility owner reasonable notice, for the following:~~

~~(a).Failure to comply with the provisions of this policy.~~

~~(b).Failure to comply with the terms and conditions of the permit or agreement.~~

~~(c).If the utility occupancy becomes an interference to the use of the highway right-of-way for highway purposes.~~

706. EMERGENCY CONDITIONS

In the event of conditions where immediate action by the utility owner is necessary for the protection of persons or property, or to minimize damage to or loss of utility or highway property, the utility, at its own responsibility and risk, may make necessary repairs and shall notify the Highway District Permit Officer or Utilities Section of such work as soon as practicable.

707. UTILITY OWNERS RESPONSIBILITY

1. To notify the District Permit Office three (3) days prior to beginning work.

2. To maintain a copy of the Utility Permit on the job site throughout the work period. Violation of this requirements may cause work stoppage.

3. To make sure that work is done in accordance with the approved permit and, unless prior approval is given by the Utilities Section, any installation which deviates from the approved permit is subject to removal from the highway right-of-way.

4. To notify the Department's District Permit Officer upon completion of the installation for a final inspection and release of the bond.

5. If at any time a change or improvement in the highway necessitates an adjustment or removal of the facility installed under a permit, it shall be at the expense of the owner.

708. DEPARTMENTAL RESPONSIBILITY

1. It is the responsibility of the Utilities Section, Right-of-Way Division, to make all arrangements, written or verbal, for the accommodation of utility facilities on state highway rights-of-way.

2. Verbal approvals will be made only for emergency or extreme hardship situations.

3. It is the responsibility of the Department's District Permit Officer to:
(a) Recommend permits for approval.
(b) Set bond amounts.
(c) Provide inspections as needed to assure that utility installations are done in accordance with approved permits.

~~(d)Make final inspection of the work area restoration and recommend release of the bond.~~

SECTION 8

MISCELLANEOUS

801. PRIVATE UTILITY FACILITIES

Permits will be issued to private owners for highway crossings only. Longitudinal installations within the highway right-of-way are not permitted.

802.HIGHWAY LIGHTING

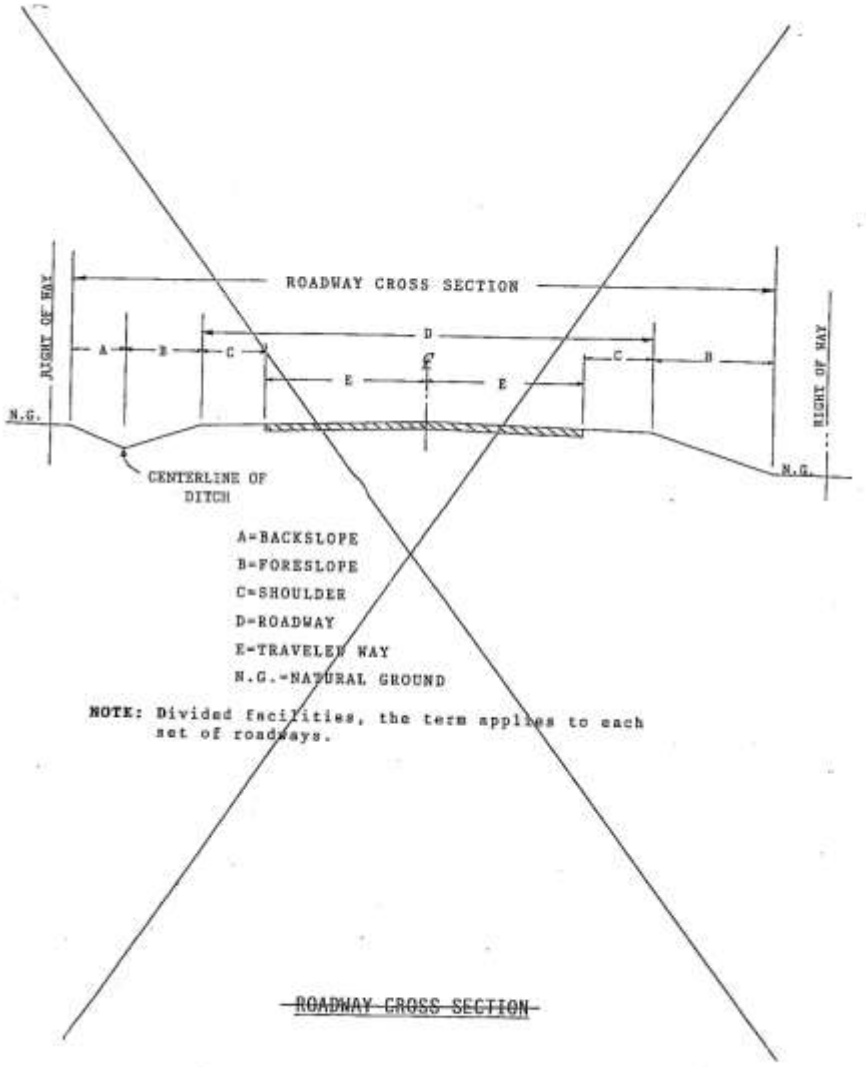
Requests for permits to install or renovate highway lighting systems by electric utilities or municipalities shall be treated as special cases. Each request shall be referred to the Department's Roadway Design Division for review and recommendations as to acceptability of the design, adequacy of lighting, and safety factors. In addition the permit must meet the other applicable provisions of this policy.

803.CORRECTION OF HAZARDOUS INSTALLATIONS

When it becomes evident that an existing utility facility has become a hazard to the safe operation of a highway facility, the Department shall require the utility owner to correct the condition.

804.GENERAL

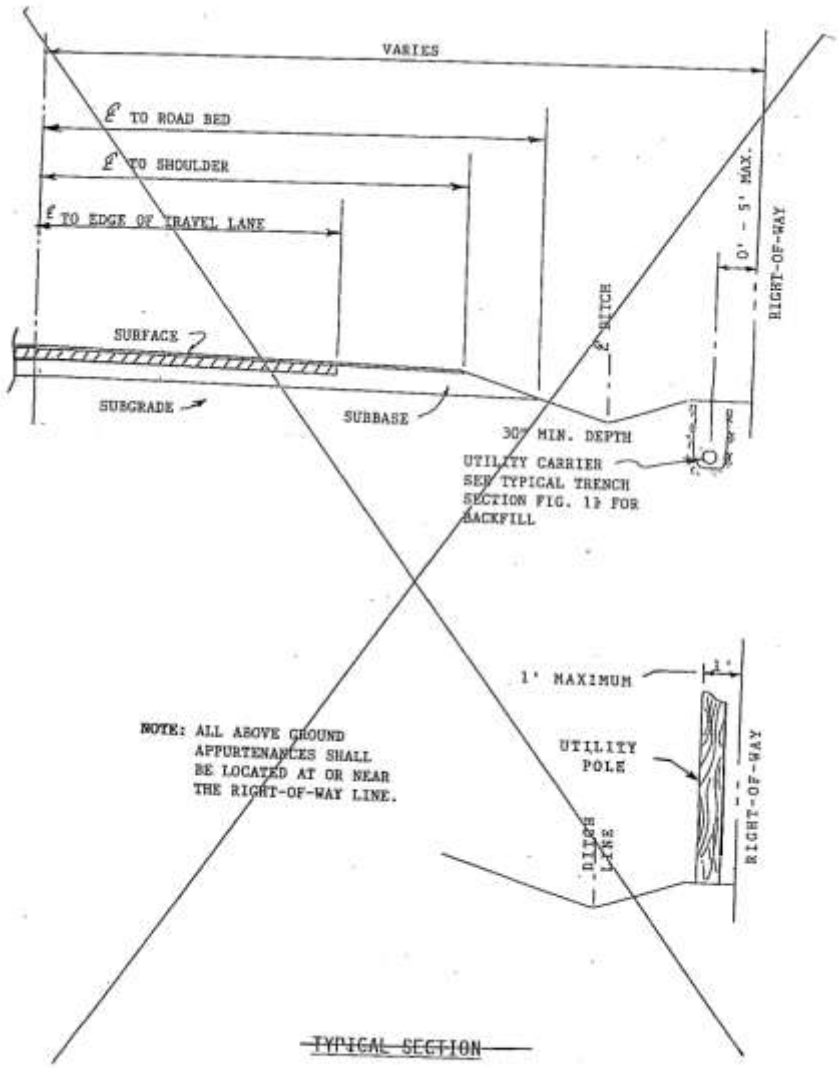
~~Various types of utilities not specifically covered herein shall be considered within the provisions of this policy in accordance with the nature of the utility. It shall be a general practice to consider all lines carrying caustic, flammable, or explosive materials under the provisions for high pressure gas and liquid fuel lines.~~

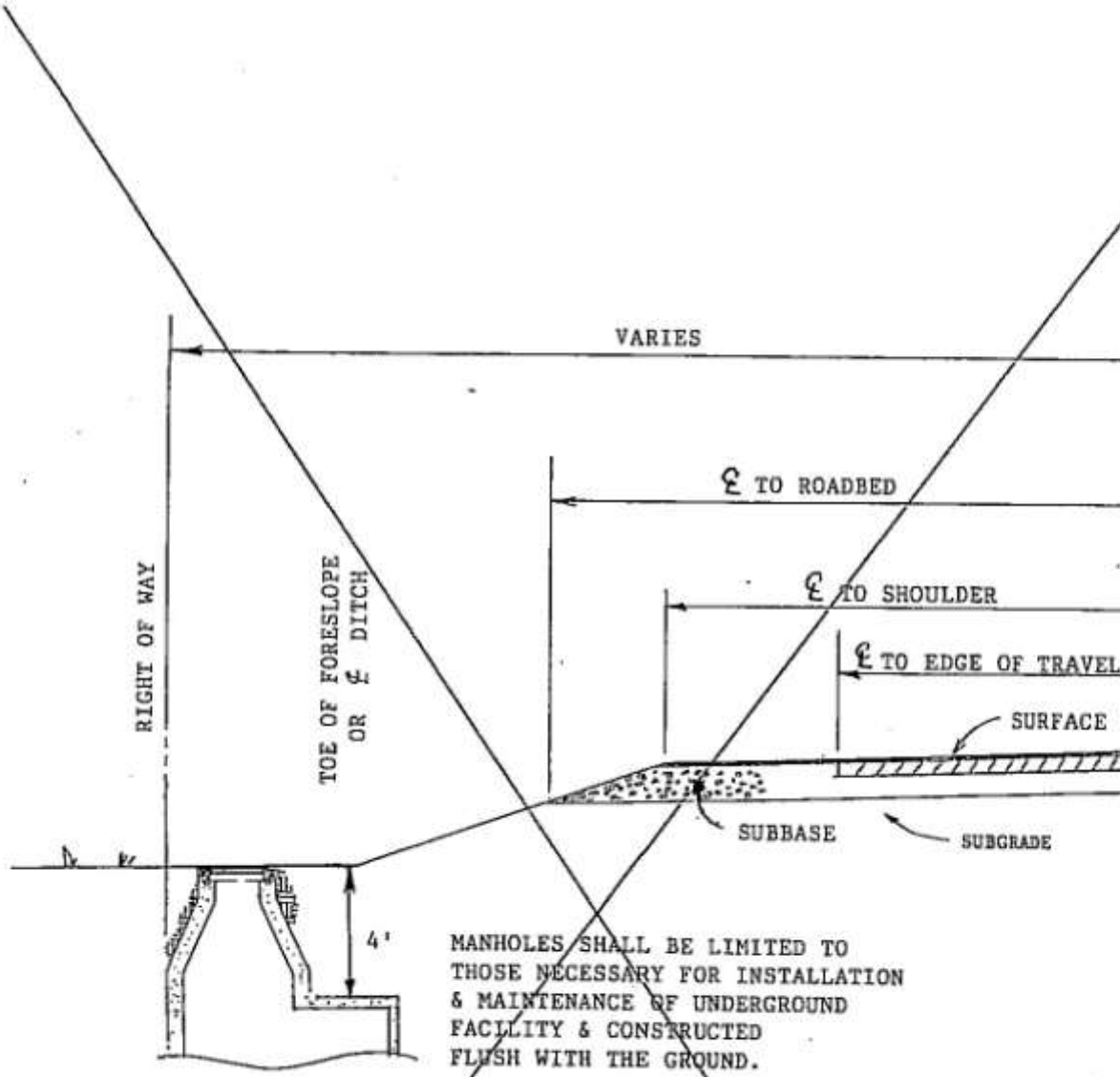


~~ROADWAY CROSS SECTION~~

33

FIGURE 1

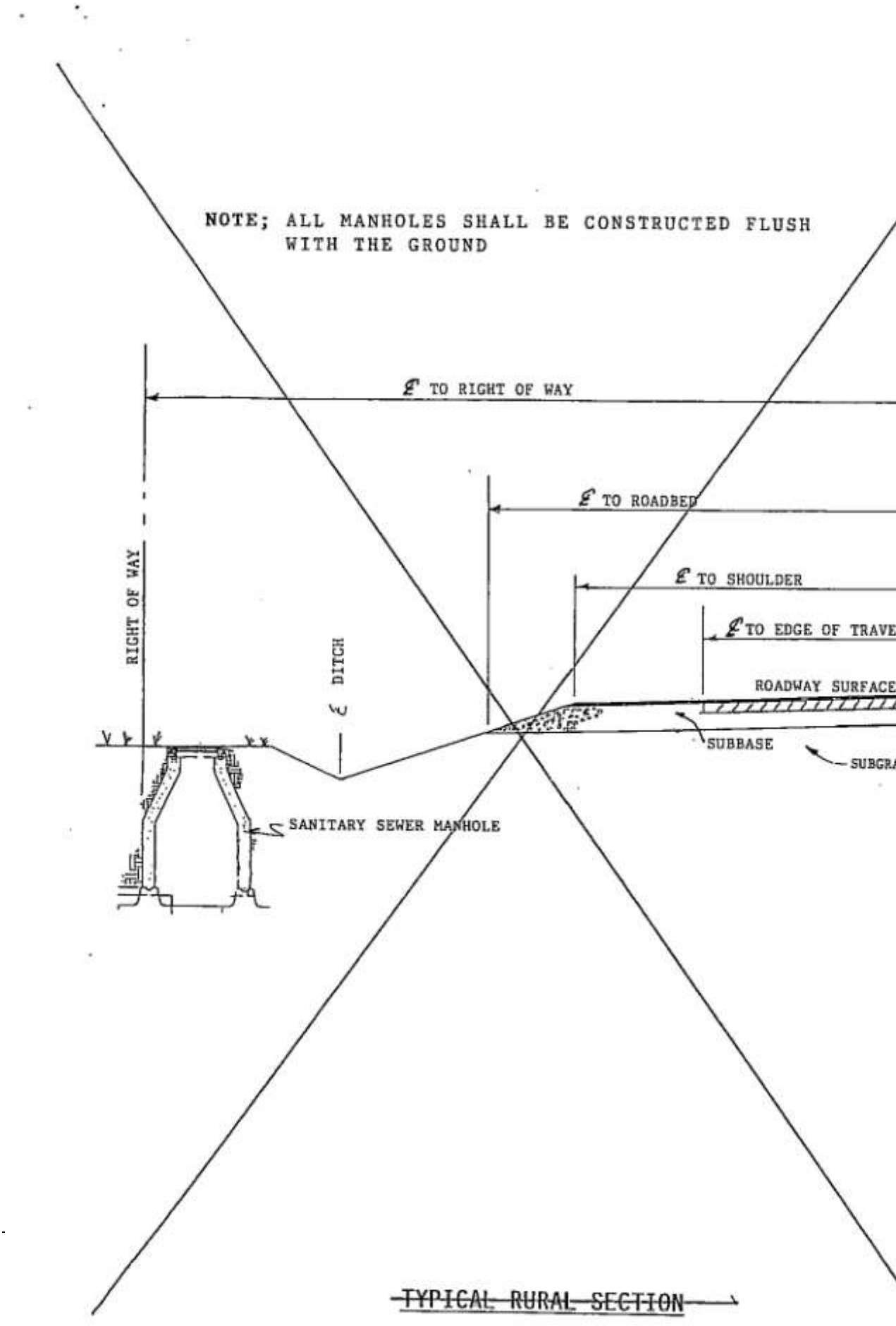

VARIES
℄ TO ROAD BED
℄ TO SHOULDER
℄ TO EDGE OF TRAVEL LANE
SURFACE
SUBGRADE
SUBBASE
DITCH
0' - 5' MAX.
RIGHT-OF-WAY
30" MIN. DEPTH
UTILITY CARRIER
SEE TYPICAL TRENCH
SECTION FIG. 12 FOR
BACKFILL
1' MAXIMUM
UTILITY
POLE
NOTE: ALL ABOVE GROUND
APPURTENANCES SHALL
BE LOCATED AT OR NEAR
THE RIGHT-OF-WAY LINE.
DITCH
LINE
RIGHT-OF-WAY
TYPICAL SECTION
34



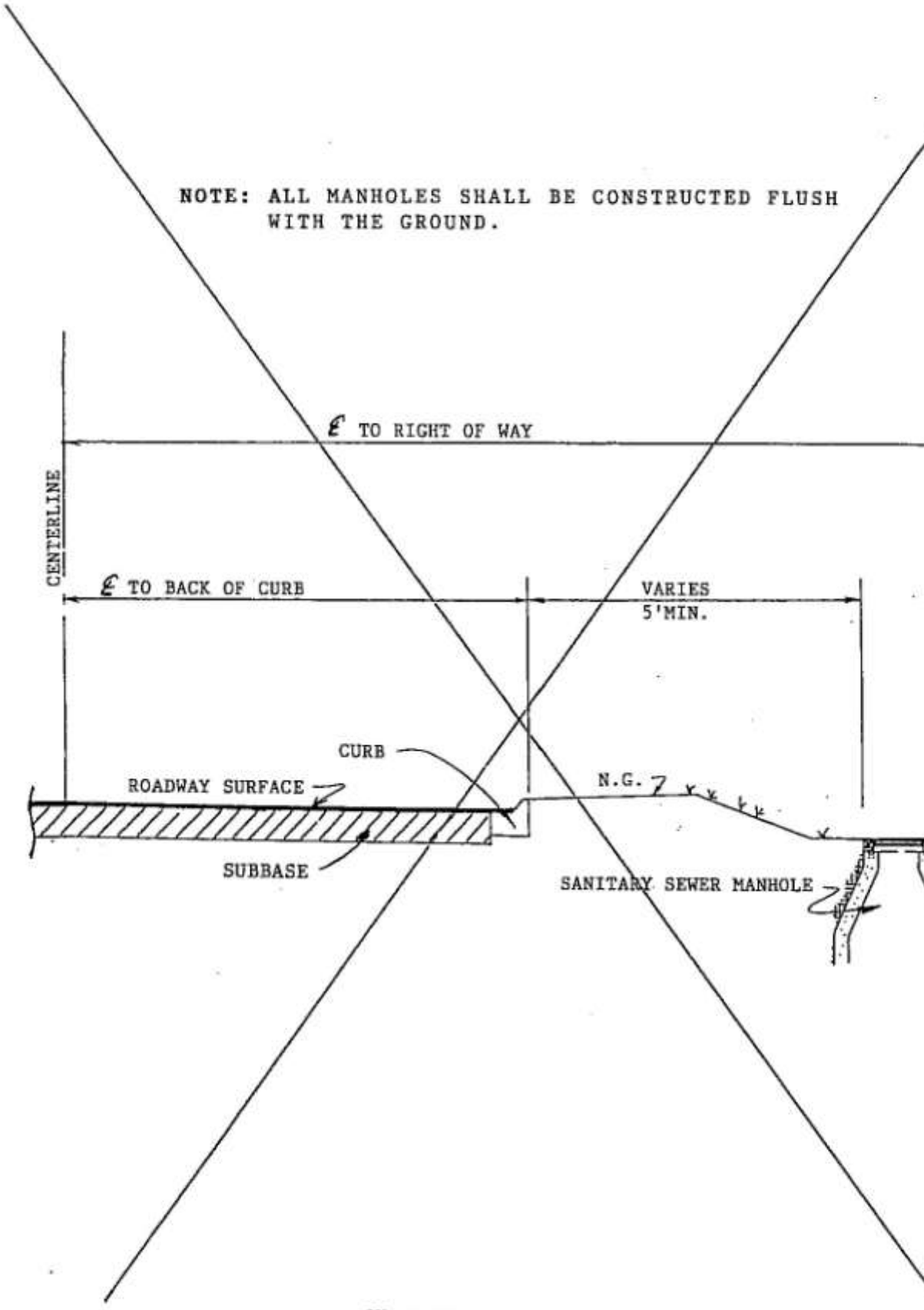
NOTE: (1). TO CONSERVE SPACE WITHIN THE R/W MANHOLE/VAULT DIMENSIONS SH
BE THE MINIMUM ACCEPTABLE FOR GOOD ENGINEERING & SAFETY STAN

(2). TOP OF VAULTS HAVING MANHOLES SHALL HAVE A MIN. OF 4' COVER.
(GROUND TO VAULT)

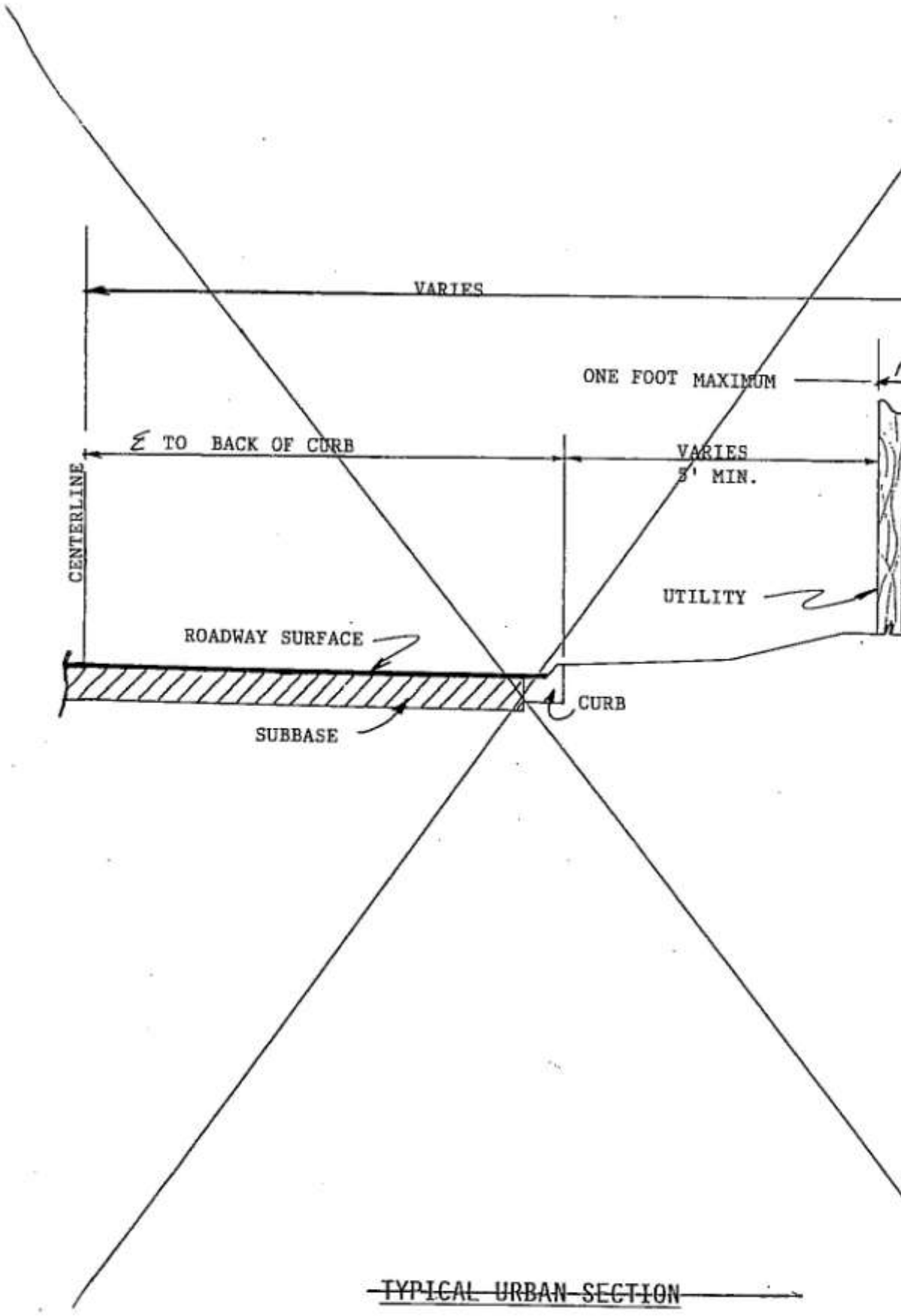
TYPICAL RURAL SECTION



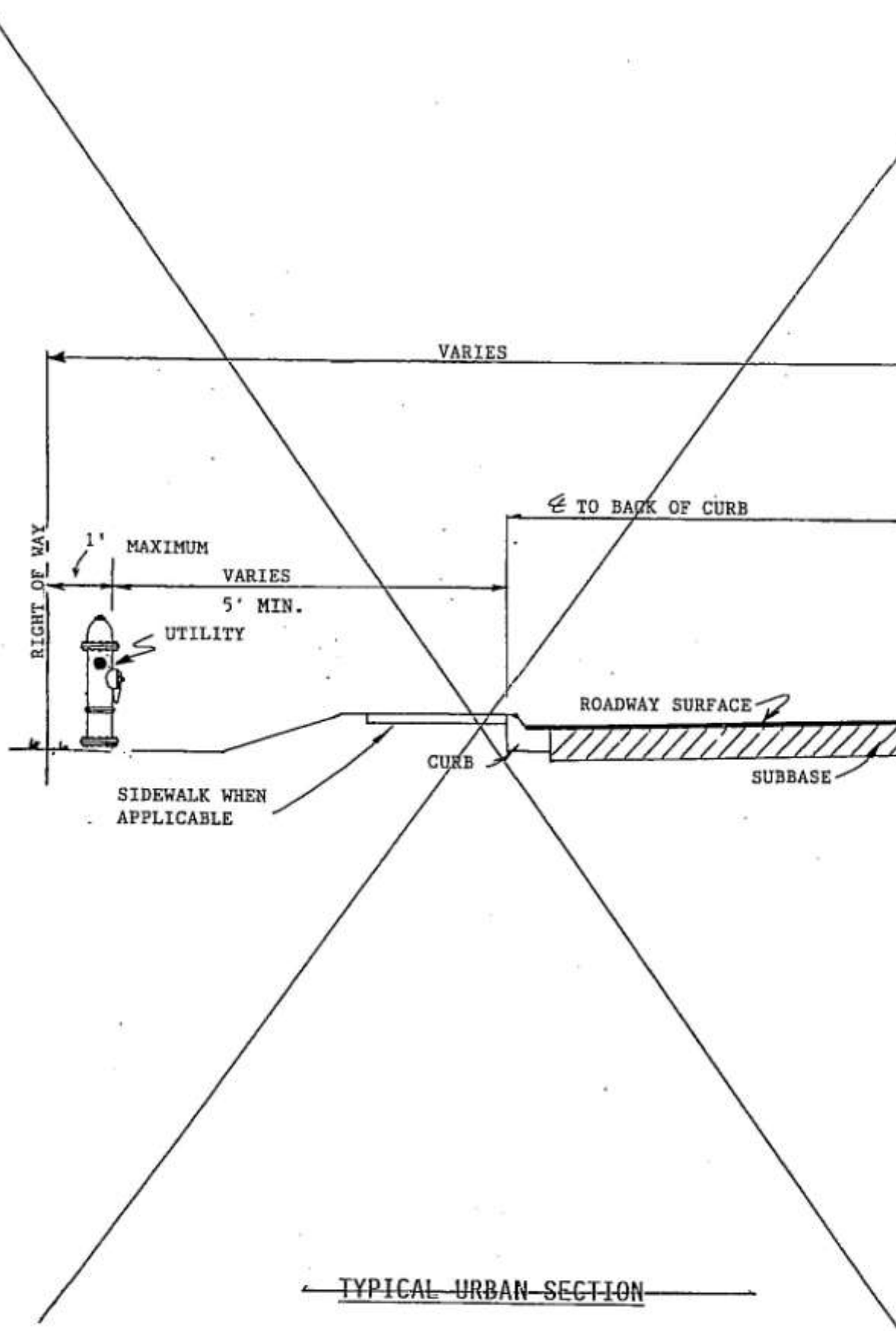
TYPICAL RURAL SECTION



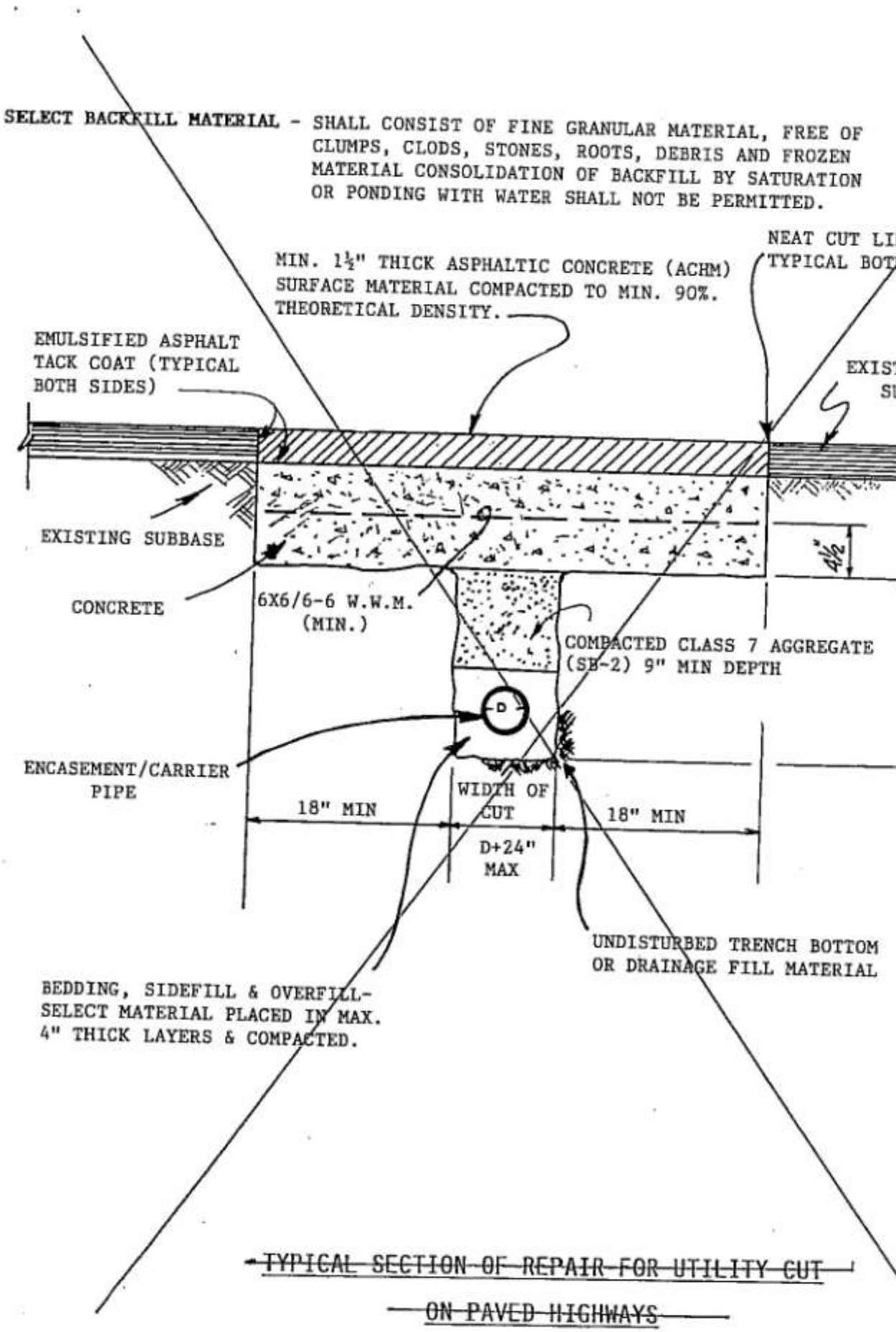
TYPICAL URBAN SECTION



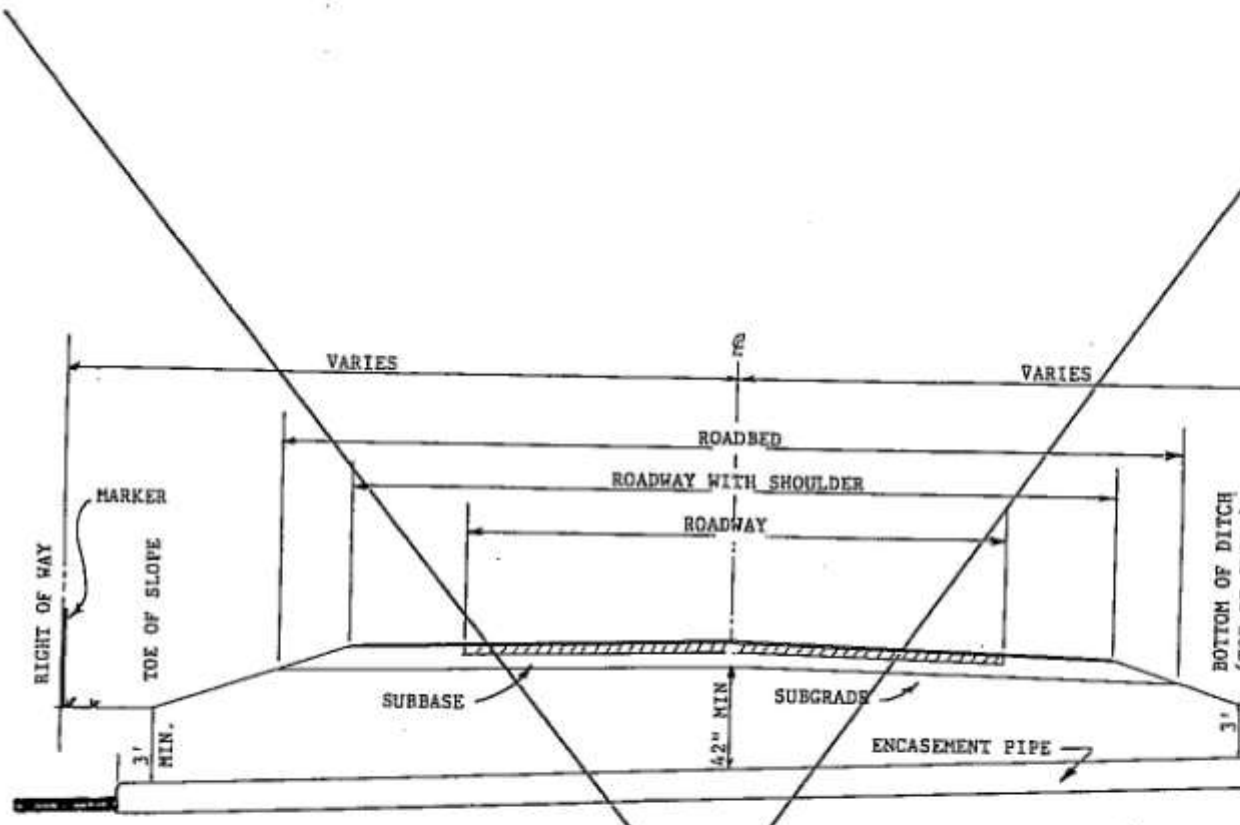
TYPICAL URBAN SECTION



TYPICAL URBAN SECTION



~~TYPICAL SECTION OF REPAIR FOR UTILITY CUT ON PAVED HIGHWAYS~~



NOTE: (1). CASING SHALL EXTEND A MINIMUM OF THREE FEET (3') BEYOND THE LINE OF PARALLEL DITCHES, TOE OF THE FORESLOPE, OR FACE OF AS APPLICABLE FOR THE HIGHWAY SECTION.

(2). ENCASEMENT MAY BE OF METALLIC OR NONMETALLIC MATERIAL.

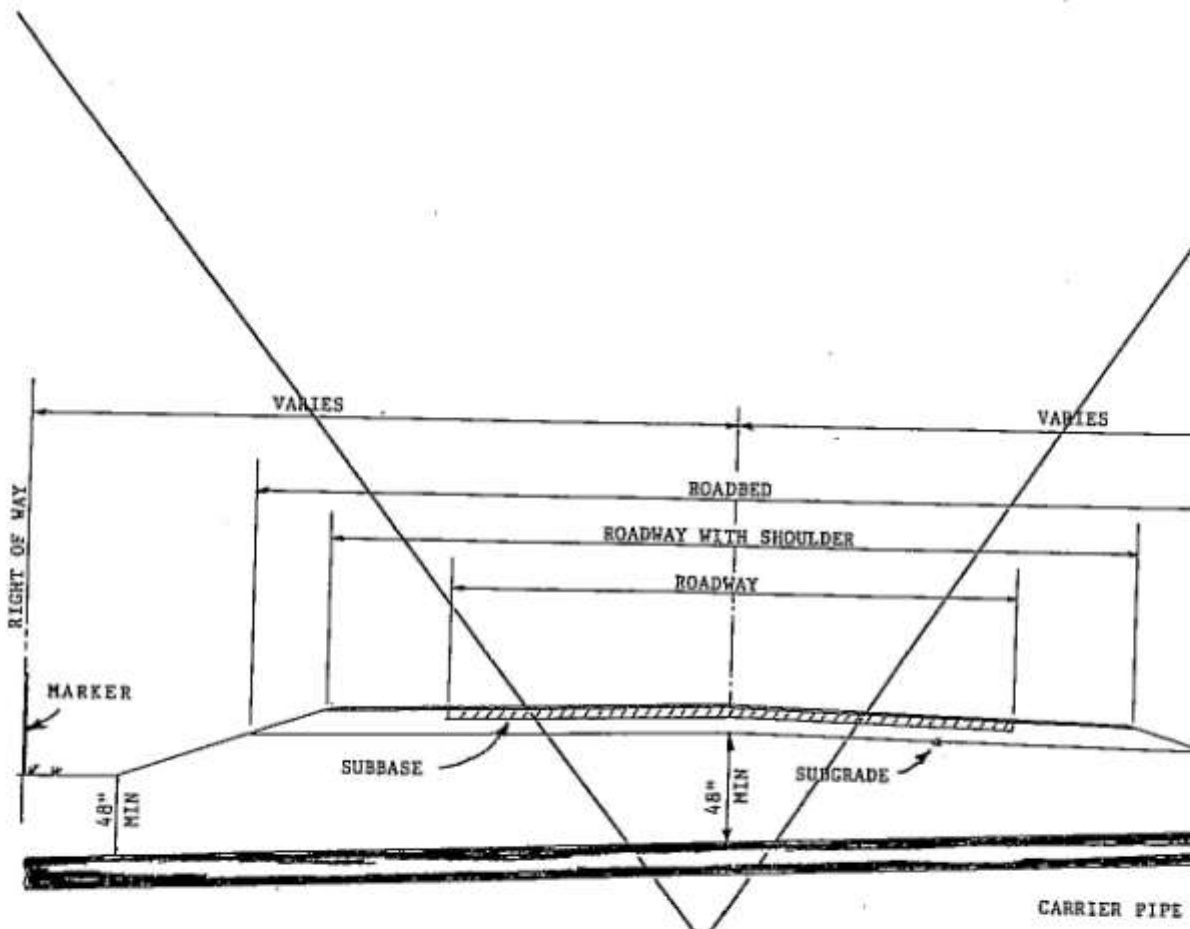
(3). THE STRENGTH OF THE ENCASEMENT MATERIAL SHALL EQUAL OR EXCE STRUCTURAL REQUIREMENTS FOR HIGHWAY DRAINAGE CULVERTS.

(4). MARKER: A MARKER BEARING THE UTILITY OWNERS NAME SHALL BE AT EACH RIGHT OF WAY LINE WHERE CROSSED. (Not required for service lines).

(5). OWNERSHIP OF THE LINES SHALL BE SHOWN ON VENTS.

(6). CASING PIPE SHALL BE SEALED AT THE ENDS WITH A FLEXIBLE MATER

~~TYPICAL CROSSING (ENCASED)~~

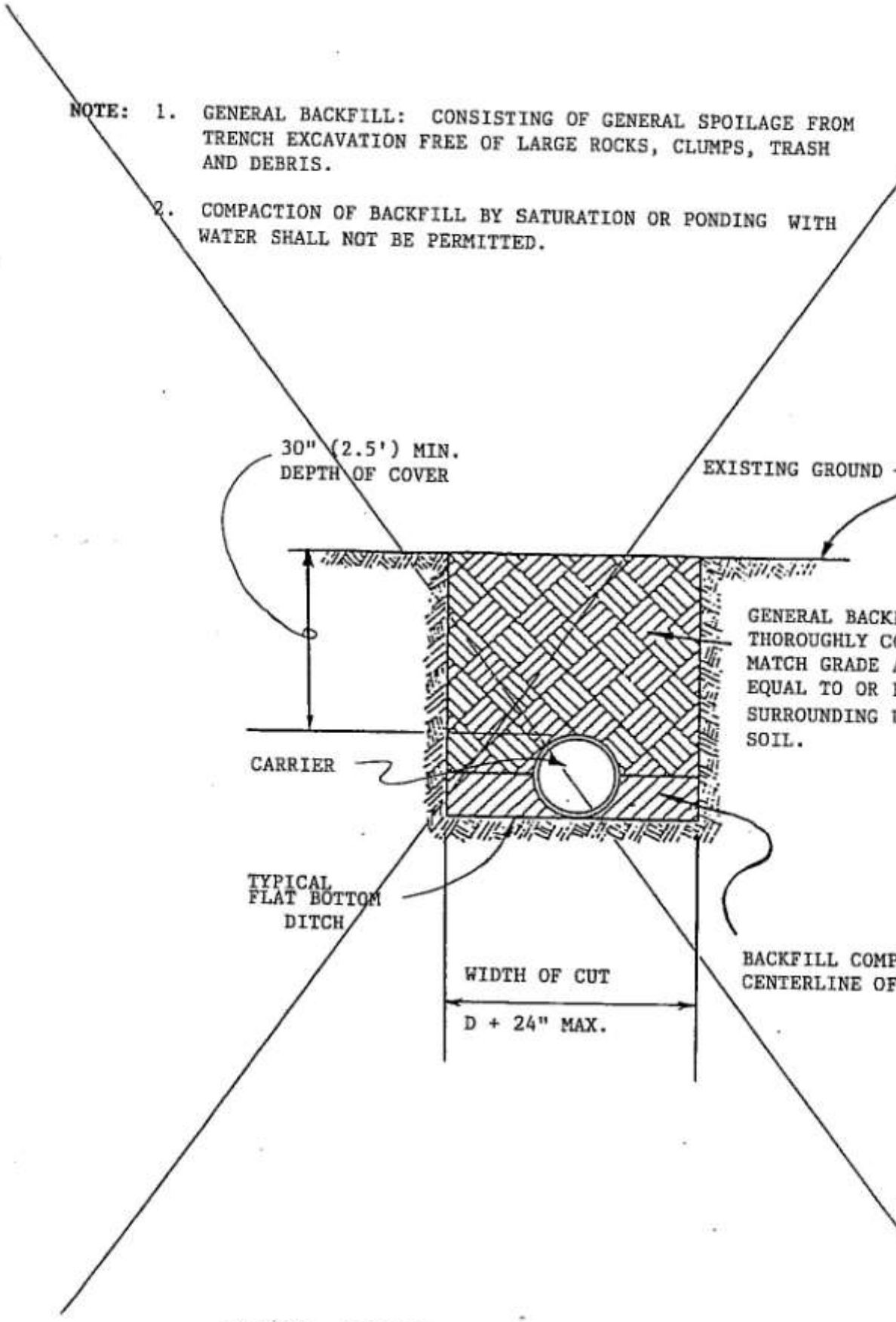


NOTE: (1). UNCASED PIPELINE CROSSINGS SHALL HAVE A MINIMUM DEPTH OF COVER OF 48" BELOW THE DITCHES OR THE PAVEMENT SURFACE, WHICHEVER GIVES THE GREATER COVER.

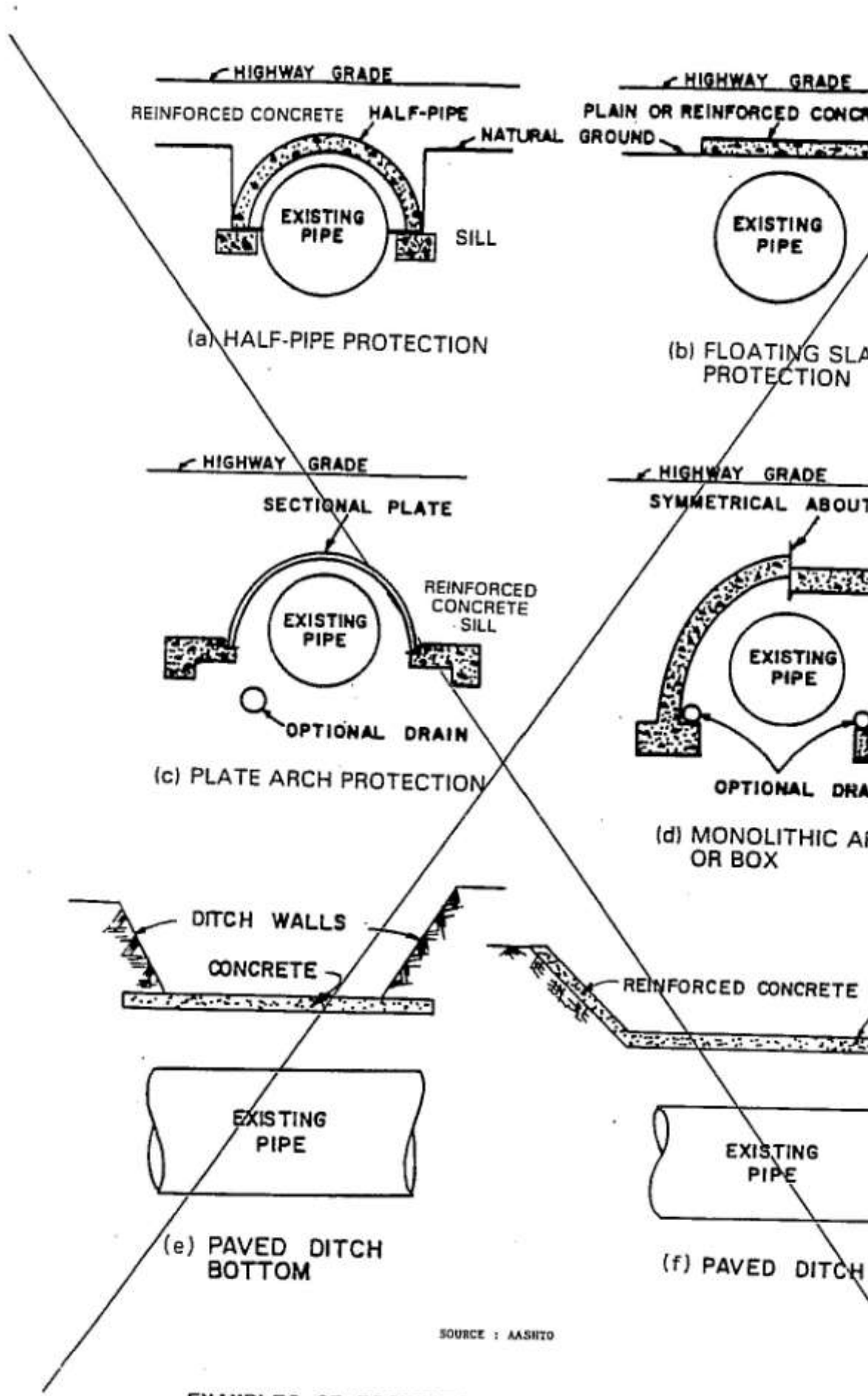
(2). UNCASED PIPELINE W/ADDITIONAL PROTECTION SHALL EXTEND A MINIMU OF THREE FEET (3') BEYOND THE FLOWLINE OF PARALLEL DITCHES, TO OF FORESLOPE, OR FACE OF CURBS AS APPLICABLE FOR THE HIGHWAY SECTION.

(3). MARKER: A MARKER BEARING THE UTILITY OWNERS NAME SHALL BE PLA AT EACH RIGHT OF WAY LINE WHERE CROSSED (Not required for serv lines).

~~TYPICAL CROSSING (UNCASED)~~

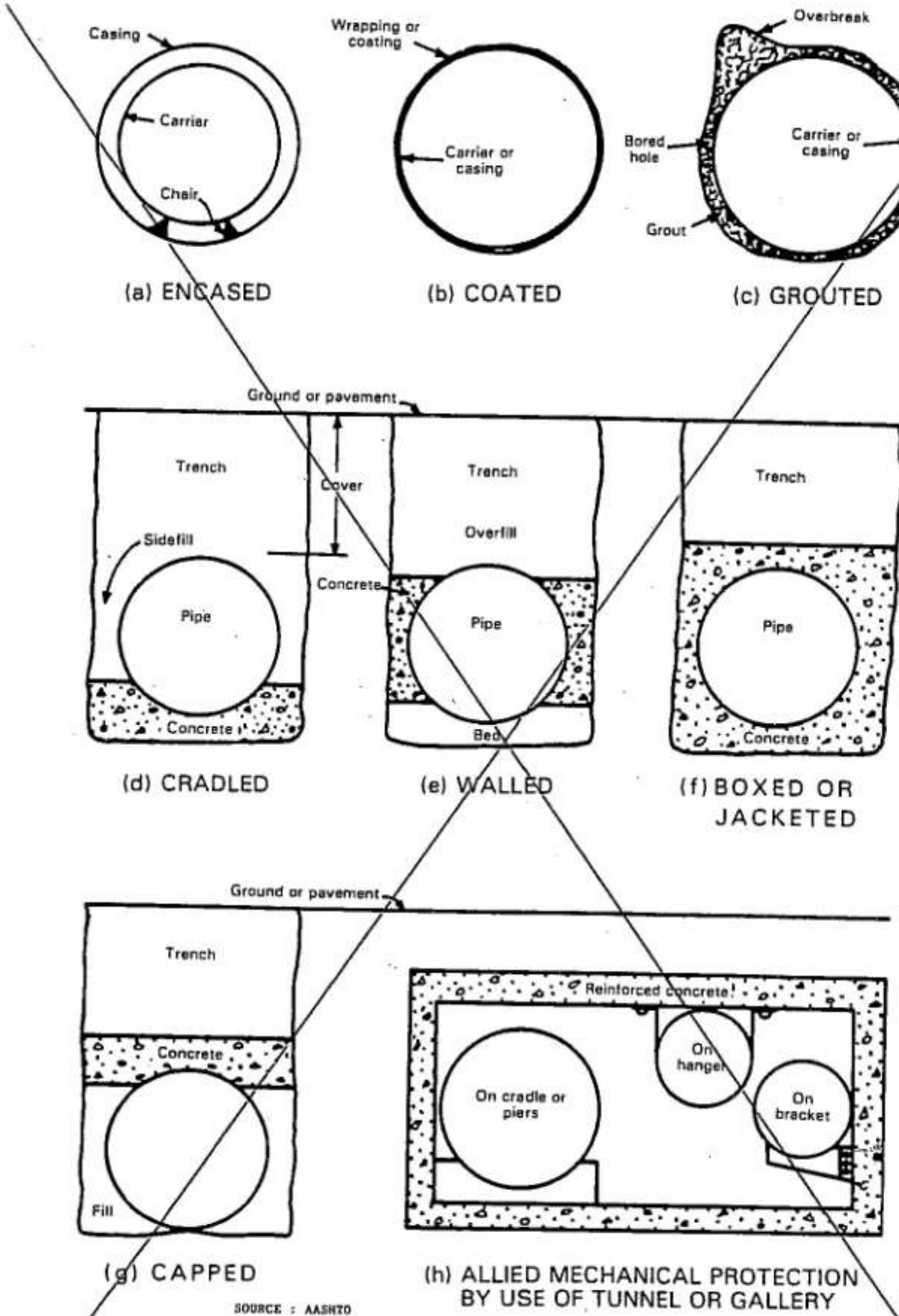


TYPICAL SECTION OF LONGITUDINAL TRENCH



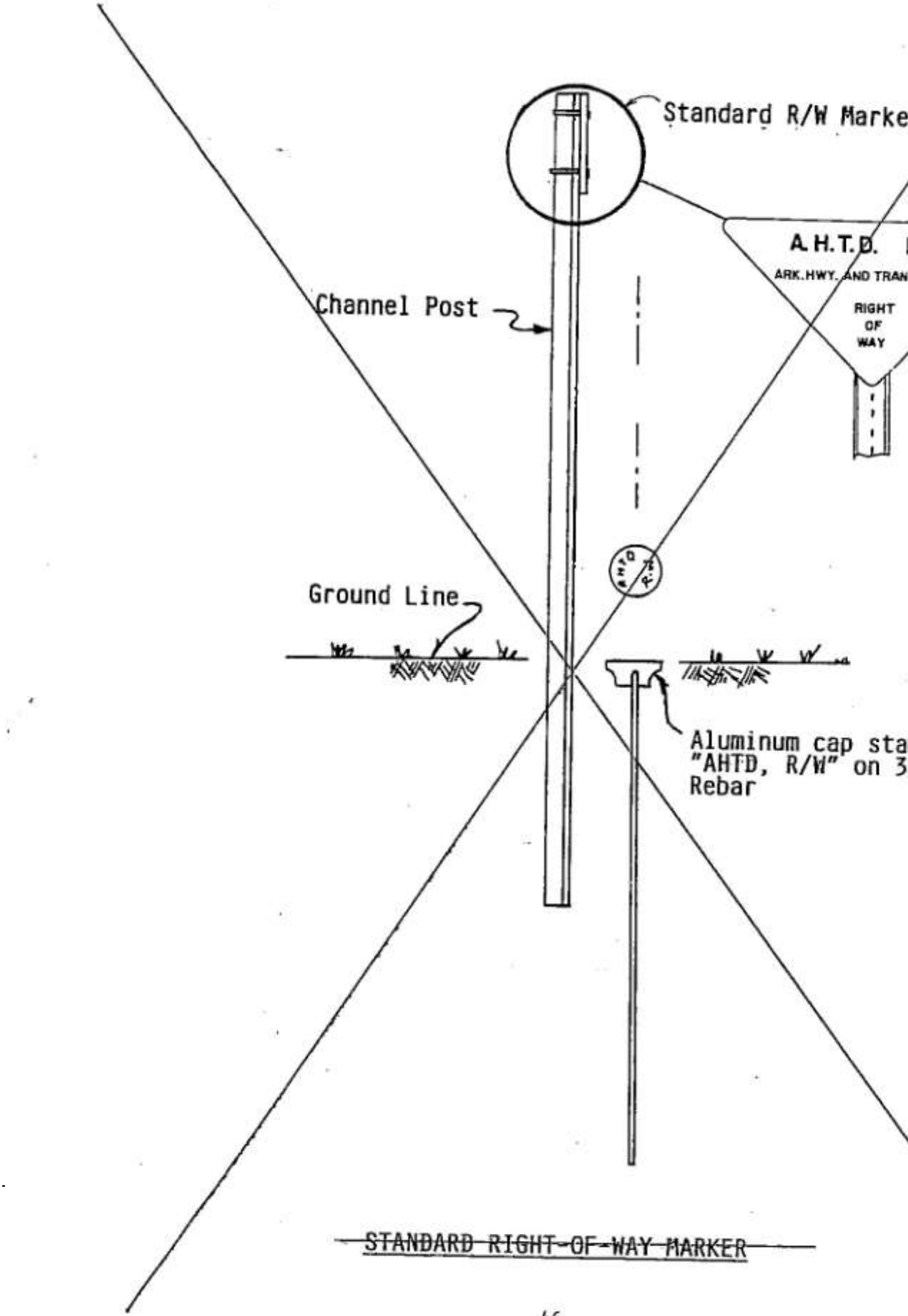
SOURCE : AASHTO

EXAMPLES OF PROTECTION OF EXISTING PIPELINES

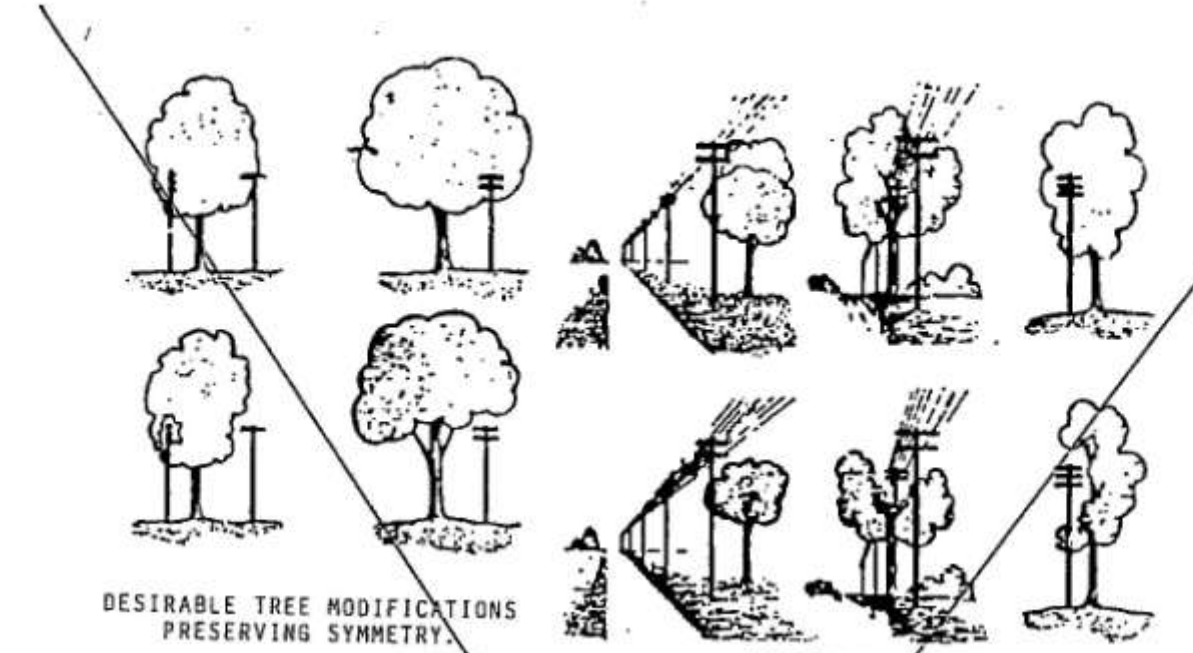


SOURCE : AASHTO

EXAMPLES OF ENCASEMENT AND ALLIED MECHANICAL PROTECTION

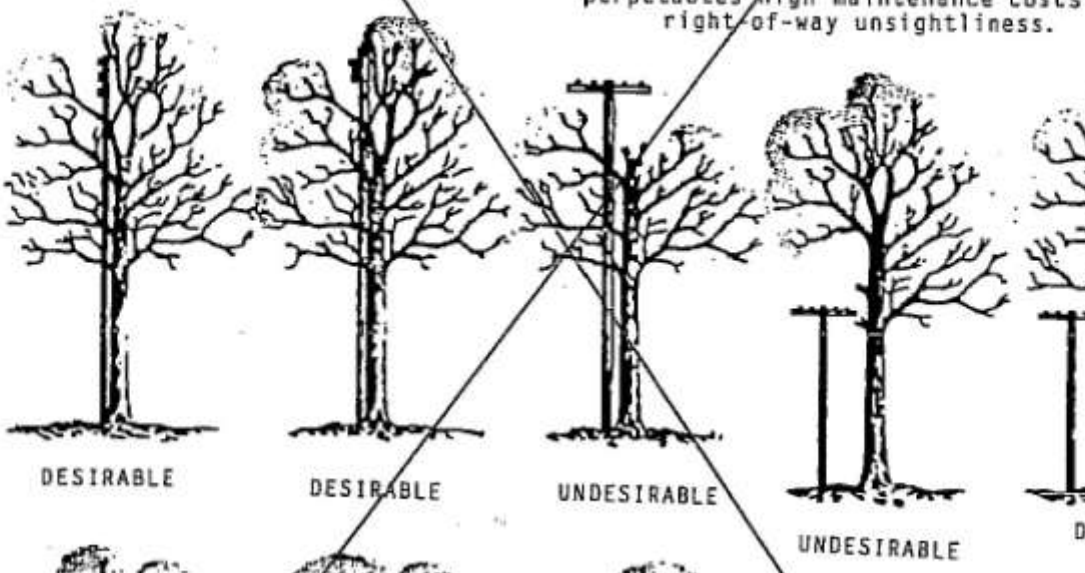


STANDARD RIGHT-OF-WAY MARKER

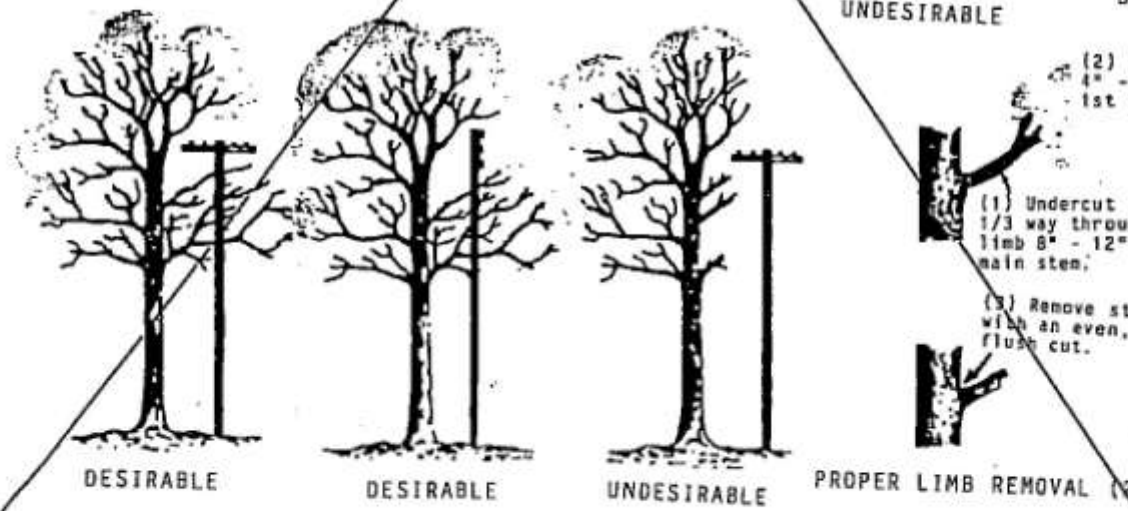


DESIRABLE TREE MODIFICATIONS
PRESERVING SYMMETRY.

UNDESIRABLE TREE MODIFICATIONS
Such tree-line relationships as illus
perpetuotes high maintenance costs
right-of-way unsightliness.

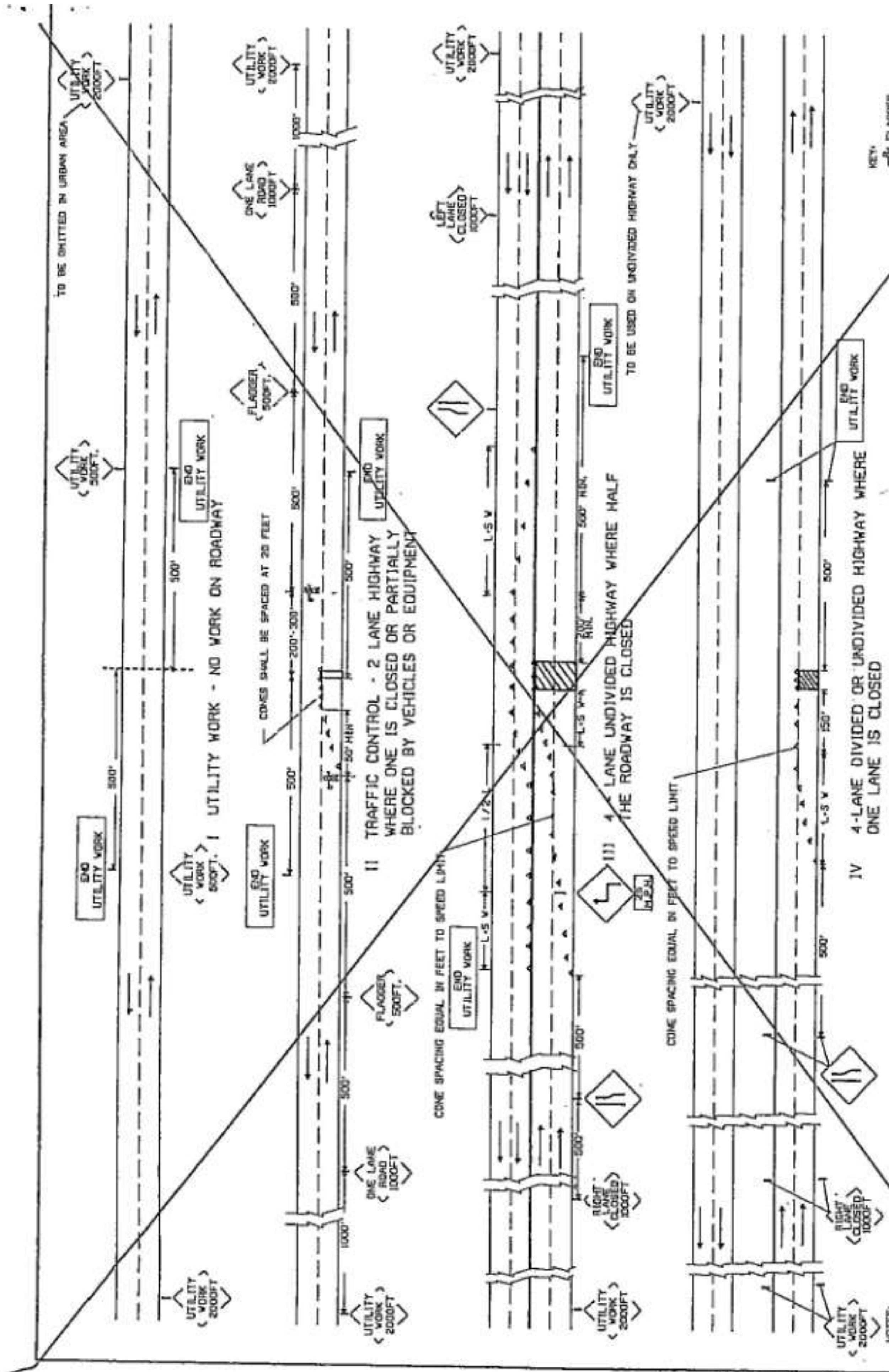


DESIRABLE DESIRABLE UNDESIRABLE UNDESIRABLE

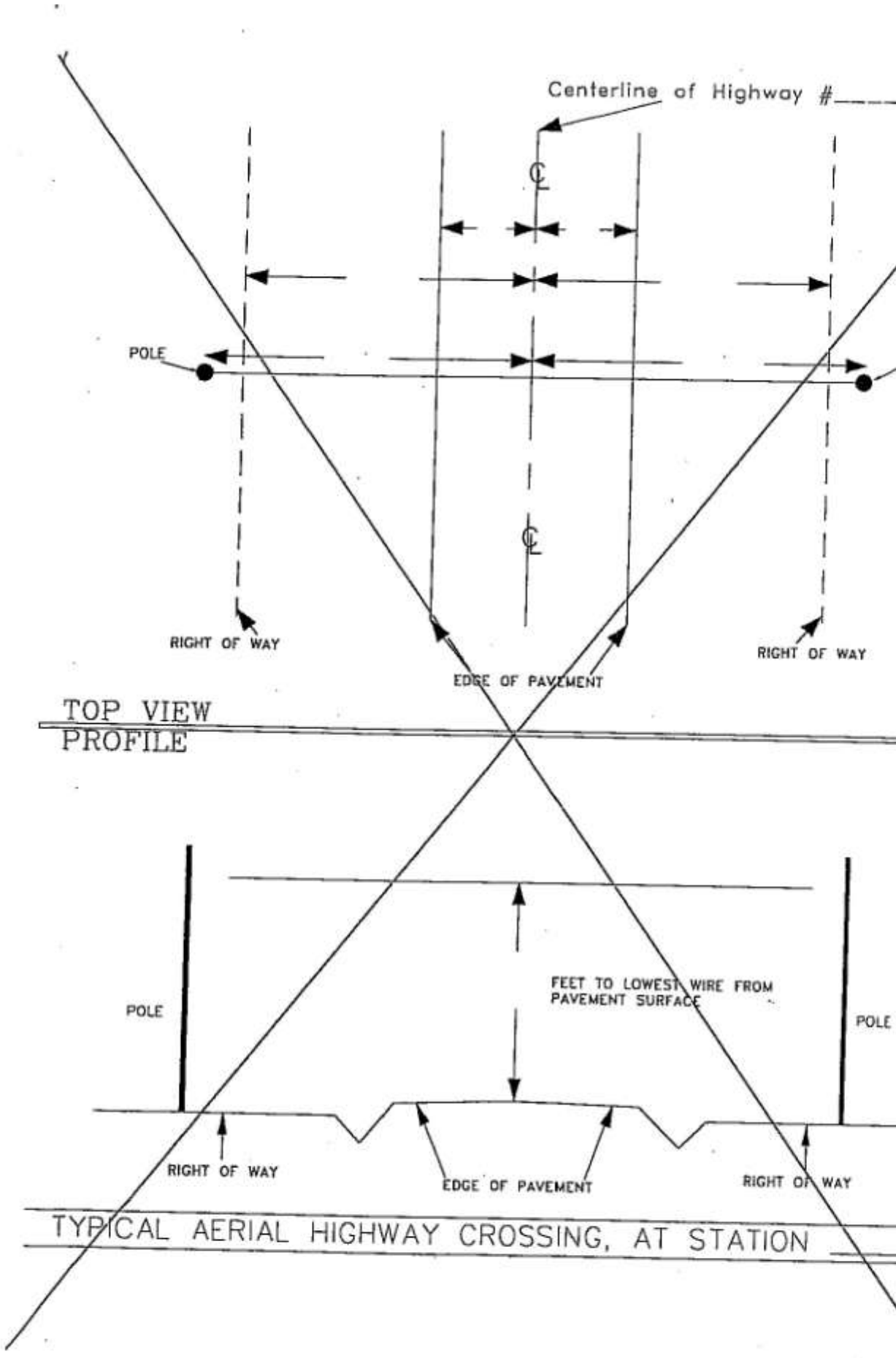


DESIRABLE DESIRABLE UNDESIRABLE PROPER LIMB REMOVAL

PRUNING SUGGESTIONS


TO BE OMITTED IN URBAN AREA
I UTILITY WORK - NO WORK ON ROADWAY
CONES SHALL BE SPACED AT 20 FEET
II TRAFFIC CONTROL - 2 LANE HIGHWAY WHERE ONE IS CLOSED OR PARTIALLY BLOCKED BY VEHICLES OR EQUIPMENT
CONE SPACING EQUAL IN FEET TO SPEED LIMIT
TO BE USED ON UNDIVIDED HIGHWAY ONLY
III 4 LANE UNDIVIDED HIGHWAY WHERE HALF THE ROADWAY IS CLOSED
CONE SPACING EQUAL IN FEET TO SPEED LIMIT
IV 4-LANE DIVIDED OR UNDIVIDED HIGHWAY WHERE ONE LANE IS CLOSED
UTILITY WORK 2000FT
ONE LANE ROAD 1000FT
FLAGGER 500FT.
UTILITY WORK 500FT.
END UTILITY WORK
LEFT LANE CLOSED 1000FT
RIGHT LANE CLOSED 1000FT

W 1-3
25 MPH
W 13-1
TWO WAY TRAFFIC
W 6-3
END UTILITY WORK
500 FEET
W 20-7a
W 4-2
FLAGGER 500 FT
W 20-7
UTILITY WORK 2000 FT
UTILITY WORK 500 FT
ONE LANE ROAD 1000 FT
W 20-4
RIGHT LANE CLOSED 1000 FT
W 20-5
LEFT LANE CLOSED 1000 FT
W 20-5
NOTICE: THESE ARE EXAMPLES OF TRAFFIC CONTROL DEVICES AND THEIR LOCATION FOR YOUR INFORMATION ONLY. PLEASE REFER TO THE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EDGE OF PAVEMENT
RIGHT OF WAY
TYPICAL AERIAL HIGHWAY CROSSING, AT STATION

~~ARKANSAS STATE HIGHWAY COMMISSION~~

~~UTILITY ACCOMMODATION POLICY~~

PART I I
REIMBURSEMENT
FOR
UTILITY RELOCATIONS AND ADJUSTMENTS

DISTRIBUTED BY
UTILITIES SECTION - RIGHT OF WAY DIVISION

PART II

REIMBURSEMENTS FOR

UTILITY RELOCATIONS AND ADJUSTMENTS

101.PURPOSE

To prescribe the policies and procedures for reimbursement of eligible utility costs associated with the relocation and adjustment of utility facilities on state highway construction projects. To authorize the Utilities Section to make all contractual arrangements with Utility Owners.

102.AUTHORITY

Federal-Aid Policy Guide 23 CFR 645A, as amended and supplemented,adopted by reference herein with the same force and affect as if recited at length. Determination of

reimbursement eligibility pursuant to applicable State Law, Statutory, and Case is generally interpreted by the Highway Department's Legal Counsel.

103. APPLICABILITY

Thisapplies to all utility owners with facilities affected by a highway construction project.

104. DEFINITIONS

1.UTILITY (Public)

A privately, publicly, or cooperatively owned facility which directly or indirectly serves the general public. The term utility shall also mean the utility company inclusive of any wholly owned or controlled subsidiary.

2.UTILITY (Private) A privately owned facility devoted solely to private use and not directly or indirectly serving the general public.

3.RELOCATION

The adjustment of utility facilities required by a highway project. It shall also mean the construction of a functionally equivalent replacement facility necessary for continuing operation of the utility service, the project economy, or sequence of highway construction.

105. ELIGIBILITY

A utility owner having the right of occupancy in the existing location because of holding the fee, an easement, or other real property interest the damaging or taking of which is compensable in eminent domain, is considered eligible for reimbursement. The general criteria for determining eligibility for reimbursement for relocation costs shall be applied on the basis of the factual location of the existing utility facility in relation to existing highway right-of-way.

1 ***REIMBURSABLE***

Existing utility facilities located on private property, street right-of-way of any incorporated Town or City, or County Road, dedicated urban development road, and/or private road rights-of-way which were not a part of or on the State Highway System at the time the facilities were installed, shall be considered eligible for reimbursement.

2. ***NON-REIMBURSABLE***

Utility facilities presently located on existing state highway right-of-way by

permit or unwritten consent of the Highway Department shall be considered as not eligible for reimbursement.

106.PRELIMINARY ENGINEERING

Initial authorization on highway projects is for preliminary engineering by the utility owner's personnel (force account), the cost of which will be included in the subsequent relocation agreement.

When the utility is not adequately staffed with technical personnel or the present work load would be prohibitive to perform the necessary preliminary engineering, a consulting engineer may be employed by the utility owner. If any part or all of the consultant's fee is eligible for reimbursement, the utility owner must submit a written request to the Utilities Section requesting approval for the use of a Consultant.

Preliminary engineering costs are reimbursable to the utility owner only to the extent that the existing utility facilities required to be adjusted are eligible for reimbursement.

See "UTILITY ENGINEERING BY CONSULTANT". (See Pages 54, 55 and 56)

107.RIGHT OF WAY

A utility facility located on private right-of-way or easement (outside the existing highway right-of-way) is considered to be eligible for reimbursement of the cost of replacement right-of-way. Copies of an easement or affidavit verifying the utility owner's right of occupancy must be submitted with the request for reimbursement. There will be no charge to the Highway Department for that portion of the utility owner's existing right-of-way being transferred to the Department for highway purposes.

108.AGREEMENTS AND AUTHORIZATIONS

After notification by the Utilities Section of an impending highway project, the utility owner is obligated to make the necessary arrangements for planning and accomplishing the relocation work required by the highway construction. The utility owner is responsible for the design and integrity of the utility facilities to be installed within highway right-of-way, in accordance with PART I "Utility Accommodation Policy".

The utility owner's responsibilities include but are not limited to the following functions:

~~1. Determination of any and all conflicts the existing utility facilities have with the proposed highway construction.~~

2.Preparation of detailed cost estimates and plans providing for the adjustment or relocation work required to clear the highway construction. This information shall include sufficient detail to provide the Utilities Section a reasonable basis for analysis.

3.Determination of whether the work will be accomplished by force account or let to contract to the lowest qualified bidder.

a.FORCE ACCOUNT WORK All work would be done by the Utility's own personnel.

b.CONTRACT WORK A contract would be awarded to the lowest qualified bidder based on an appropriate solicitation.

In some instances a combination of force account and contract labor may be required. Work normally done for a utility owner by a contractor under an existing continuing contract may be acceptable, provided the established rates are reasonable.

See - "PREPARATION OF COST ESTIMATES AND ADJUSTMENT PLANS" (See Pages 59 - 61)

After the Utilities Section has reviewed and approved the plan information and cost estimate (if applicable), work authorization will be given by one of the following methods:

1.Nonreimbursable adjustment work request issued when the utility's adjustment work is 100% nonreimbursable.

2.Work Order letter with agreement. If the utility's adjustment work is reimbursable, or partially reimbursable, an agreement will be prepared by the Utilities Section. The agreement may be lump sum method (confirmation by audit is not required) or the actual cost method (subject to audit because billing will be for actual expenditures).

109. CONSTRUCTION

After issuance of work authorization by the Utilities Section, the utility owner is expected to begin the adjustment work within a reasonable time and to exercise due diligence to complete the work without delay or interference to the highway contractor's operation.

All utility work shall be done in accordance with the approved plans, specifications, and agreement (if applicable). Any deviation in the scope of the work must have written

authorization from the Utilities Section prior to the implementation of the change in order for the cost to be eligible for reimbursement.

In cases where undue delays to the highway project might be caused, verbal authorization for such changes may be given by the Utilities Section subject to submission and approval of revised plans and estimate as needed to prepare a written authorization.

Utility Owners shall notify the designated Resident Engineer not less than three (3) days prior to starting work in order that observation and inspection of the work may be provided and shall periodically inform him of the progress of the work. *The utility owner shall notify the Resident Engineer on the date the work is completed so that a final inspection by the Resident Engineer may be scheduled.*

110.INSPECTION

The inspection process is the responsibility of the Resident Engineer assigned to a project under the jurisdiction of the District Engineer. Both reimbursable and nonreimbursable adjustment work should be inspected on a daily basis to ensure proper installations as approved in each utility's work order.

The Resident Engineer will advise the Construction Engineer by memorandum with copies to the District Engineer and Utilities Section when the utility starts adjustment work.

The Resident Engineer is required to keep daily inspection records (diary) verifying materials, labor, and major items of equipment used for work performed under actual cost agreements. This information is not required for lump sum agreements, or for nonreimbursable work.

The Resident Engineer will notify the Construction Engineer by memorandum with copies to the District Engineer and Utilities Section when the utility company has completed the adjustment work. The memo should state that the work was completed as approved in the agreement, or it should list any changes from the original adjustment plans that are a part of the agreement. Two (2) assembled copies of the Resident Engineer's diary will accompany the Utilities Section copy of the memo if the agreement was prepared on the actual cost payment procedure.

The Utilities Section will hold this data until the utility forwards its billing. When the bill is checked by the Utilities Section the Resident Engineer's data will be attached and it will immediately be forwarded to FISCAL SERVICES for audit and payment.

111.BILLING

Upon completion of the adjustments the utility owner shall provide, in accordance with the terms of the agreement, one final and complete billing of the actual costs incurred, or

the agreed-to lump sum amount, at the earliest practicable date, but not later than twelve (12) months after the work is completed.

1. ACTUAL COST AGREEMENT

a.Written certification by the utility owner that the work has been done in accordance with the provisions of the approved agreement.

b.Three (3) copies of the final billing invoice complete with supporting detail.

c.One (1) set of the as-built plans.

If requested by the utility owner, intermediate progress payments of 90% of eligible billed costs may be made, provided the billed amount is $5,000.00 or more. Such payments shall be made at no more than monthly intervals and shall cover only work completed to date, but may include payments for materials on hand.

2. LUMP SUM AGREEMENT

a.Written certification by the utility owner that the work has been done in accordance with the provisions of the approved agreement.

b.Three (3) copies of the final billing invoice in the exact amount of the agreed lump sum.

c.One (1) set of as-built plans.

See - "ACCOUNTING INSTRUCTIONS AND RECORD REQUIREMENTS". (See Pages 62 - 70)

UTILITY ENGINEERING BY CONSULTANT

Under certain circumstances when a utility is unable to perform the engineering work because it is not adequately staffed with technical personal or the present work load would be prohibitive to perform the engineering services with its own forces, a consulting engineer may be employed by the utility.

If any part or all of the consultant's fee is eligible for reimbursement, the utility owner must submit a written request to the Utilities Section requesting approval for the use of a consultant.

Consultant engineering costs are reimbursable only to the extent that theexisting facilities are determined to be eligible.

Consultant engineering fees must be based on actual cost, with a fixed amount for profit, and having a fixed upper limit for the total fee.

Preliminary Phase Engineering fees may be handled by lump sum reimbursement when the work is clearly defined and the feerelatively small. However, a breakdown of the fee is required.

Construction Phase Engineering fees must be handled on the actual cost basis.

It is recommended that consultant fees for reimbursement be based on the hourly base rate for each job classification with current percentages for payroll expense and general overhead expense being applied to the total direct labor cost.

PRELIMINARY ENGINEERING PHASE PROCEDURES

1.The utility owner will be authorized to have the consultant proceed with preparing a preliminary engineering fee estimate, and contract with the utility owner. The Engineer's fee shall not be based on a percentage of the cost of relocation.

2.These documents plus the consulting engineer's certification will need to be submitted in five (5) copies for approval by the Utilities Section.

3.The Utilities Section will then prepare a Preliminary Engineering Agreement with the utility owner. The consultant will be required to begin and complete the Preliminary Engineering contractual obligations within a specified time.

4.Following proper execution of the Highway Department/Utility Owner Preliminary Engineering Agreement, the Utilities Section will issue a Preliminary Engineering Work Order to the utility owner authorizing the consultant to begin the preliminary engineering phase of the work

encompassing the following:

a.Field surveys and investigations; including any and all work to secure the proper information to prepare plans, specifications, cost estimates and necessary easements.

b.Preparation of complete and detailed plans of the existing and proposed facilities with an itemized cost estimate for the relocation work.

c.Preparation of contract documents and specifications incident to the advertisement of bids. One (1) copy of the specifications form approval only are required in the initial submittal.

d.Submission of all necessary documents through the Utility Owner to the Utilities Section and to other agencies having jurisdiction when required, e.g. (Arkansas State Health Department).

After approval of the cost estimate and plans, a Highway/Utility Relocation Agreement will be prepared and submitted to the utility owner for execution.

After receiving the fully executed agreement, the Utilities Section will authorize the utility owner to proceed with advertising for bids and acquisition of necessary right-of-way.

After the bids have been opened, the utility owner will submit one copy of each bid received and the bid tabulation sheet to the Utilities Section with a request for the Department's concurrence in award of the contract to the lowest qualified bidder.

After concurrence, the utility owner shall submit five (5) copies of the executed contract and five (5) sets of the completed specifications to the Utilities Section.
After these documents have been received, the Utilities Section will issue a contract work order to the utility owner.

This completes the Preliminary Engineering Phase.

NOTE: If the utility construction work is to be performed by the utility owner's personnel, the construction work order will be issued to the utility owner following execution of the Highway/Utility Relocation Agreement and the contract letting process dispensed with.

CONSTRUCTION ENGINEERING PHASE PROCEDURES

Supervision and inspection by the Consultant during the construction work will be considered as a part of the Highway/Utility Relocation Agreement and reimbursed separately from the Preliminary Engineering Agreement; and will consist of but not be limited to the following:

1.Field staking for locations and grades of the relocated work.

2.Supervision and inspection of the construction work.

3.Preparation and calculation of periodic estimates (if requested).

4.Preparation and submission of change orders (if required).

5.Coordination with Department and Utility Owner representatives.

6.Preparation and submission of final billing and one (1) complete set of as-built plans.

PREPARATION OF COST ESTIMATES AND ADJUSTMENT PLANS

TO SUPPORT HIGHWAY/UTILITY AGREEMENTS

When all or part of the cost of required adjustments of a utility owner's facilities is determined to be reimbursable, the Utilities Section shall be furnished the following:

1.Five (5) copies of a detailed cost estimate.

2.Five (5) sets of detailed adjustment plans.

a.A letter transmitting the cost estimate and plans which includes statements to indicate:

a. How manydays, after being authorized, it will take to begin the work.

b.The number of working days required to complete the adjustment work.

c.That "no arbitrary percentages or amounts have been added

~~to cover assumed costs."~~

MINIMUM REQUIREMENTS FOR A COST ESTIMATE

The estimate of cost should be detailed in accordance with Utility Work Order Procedures and Policies of the applicable Federal, State, or Local regulatory body setting up the accounting system or the utility's own accounting procedure approved in advance by the Department.

The elements or components of a cost estimate should comprise:

a.Preliminary Engineering costs
b.Utility Right-of-Way Cost
c.Cost of Replacement Facility, with Betterment's
d.Cost of Removal of replaced facility
e.Cost of restoring removed material to usable condition (if applicable).
f.Credit for material returned to stores or salvageable material.
g.Credit for Plant Betterment's (improvements in the utility facility not necessitated by the highway construction).

In the respective components, all items of labor, material, and equipment should be itemized to show quantity, type, unit cost, and extended cost, and be summarized by the various categories and recapitulated to produce the net estimated cost of the adjustment.

Preliminary Engineering costs, utility right-of-way costs (including clearing), and construction supervision and inspection costs are to be shown as separate items.

If overhead cost amounts are determined by using percentage factors, labor loadings, or some other similar method, an analysis of the basis for overhead cost computations setting forth the elements of overhead costs accumulated in the computations must be furnished.

Generally, the adjustment in the facilities of a utility will be accomplished by company forces (force account). When certain items of the adjustment are to be performed by contract forces, costs covering these items shall be shown separately in their respective categories.

The reimbursement eligibility ratio, if adjustment costs are less than 100% eligible for reimbursement, should be developed, explained, and then applied in the estimate to show the proportionate costs of the adjustment to be borne by the utility and the Highway Department.

~~MINIMUM INFORMATION NEEDED ON ADJUSTMENT PLANS~~

~~1.Be drawn to scale: (In this connection most utility owners tract or reproduce the applicable portions of the plans and profile print furnished by the Department and add the necessary detail and notations to portray accurately the proposed adjustment in the facilities as directly oriented with the highway construction plans).~~

~~2.Show the existing and proposed highway right-of-way and distances from the centerline of survey.~~

~~4.Show highway centerline stations at 100 foot intervals and station number designations at 500 foot intervals. If plans are in metric measurements, centerline stations should be shown at 100 meter intervals and station number designations at 500 meter intervals.~~

~~4. Show the existing and proposed facilities clearly referencedto the highway survey centerline stations.~~

~~5.Show quantity, size, class, and dimensions of all major items of material.~~
~~7.Show, in appropriate symbol and plan location, all major facilities existing, relocated and retired, and indicate reimbursement eligibility status of each existing facility.~~

~~8.Havelegend indicating the symbol used for the various types of facilities, work to be done, and reimbursable status.~~

~~9.Show proposed plant betterment's to be made for the convenience ofutilityeither by work or symbol at the appropriate locations.~~

~~9. Show control of access lines as well as right-of-way lines on fullycontrolled access facility projects.~~

~~10.Show a "North Arrow" to indicate true cardinal directions, and show in a title block the utility's name, the highway project designation by Job No., FAP No., and Job Name as indicated on the Title Sheet of the Highway Project Plans.~~

~~12.Show, where facilities are jointly used such as power and telephone poles, the ownership of the structures as well as the "joint user".~~

~~12. Show, where an adjustment is to be made in a pipeline crossing, a profile of thecrossing and, in the case of power or telephone line crossings, the minimum clearance after adjustment above the road surface.~~

13.Describe by narrative work to be done.

14.Traffic control plan as appropriate.

When the cost of a required adjustment is to be solely at the utility owner's expense (non-reimbursable), the utility owner shall submit five (5) sets of the detailed adjustment plans. Also, advise the time required to begin and complete the adjustment work.

Accounting Instructions and Record Requirements For Utility Adjustment Reimbursement

A utility must use an accounting system prescribed by the Federal or State Regulatory Body under which it operates, or in cases where a utilitydoes not use a prescribed accounting system, it must use its established system of accumulating specific work order costs or establish a system of accounts which will provide for accumulating direct and related costs of the utility adjustment. In any case, the system of accounts used must be in form and detail as will identify each claimed item of cost with the particular project. Costs for which all or partial reimbursement will be claimed must be completely documented and clearly identified with the specific highway job.

To facilitate the formulation of rules and regulations for agreement and payment of the costs incurred for adjusting the facilities of all privately, publicly, or cooperatively owned utilities, the provisions of the Federal Agency directives must be observed. These directives require that the preliminary estimate of cost and the actual final bill be prepared in conformity with the same accounting procedure and in each instance use comparable unit quantities and prices by cost categories such as labor, equipment, overheads, materials used and recovered, etc.

The following is a substantial but not all inclusive outline of the basic bookkeeping and related records required for utility relocations cost accounting.

The primary purpose of the records will be to support and document the utility's invoice and to assure that it is in accord with the executed and approved Highway-Utility Agreement between the State and the Utility; and that the bill includes only those costs actually incurred as direct or related costs in the relocation or removal of the utility's facilities because of a specific highway construction project.

It will be necessary for the Utility and the Highway Department's auditor to be completely familiar with the terms, conditions, and limitations contained in the above memorandum and the contents of the specific agreement. This is necessary in order for the auditor to properly verify that all charges or reimbursements claimed are eligible for State and/or Federal reimbursement; and in order that the utility be properly informed of State and Federal requirements.

Controlling Dates (of Authorization to Incur Reimbursable Costs)

1. Date of the State's written request to the utility to begin preparation of its preliminary plans and estimate of cost.
2. Date of written notice from the State to the utility to begin the adjustment work.

Preliminary engineering costs incurred prior to the date established by Step 1 above will not be reimbursed. Construction costs incurred prior to the date established in Step 2 above will not be reimbursed.

A comparison of the actual costs as billed to the estimated costs as approved will be made by the auditor to see that the utility has billed in the same manner as the estimate, and that all factors of cost are similarly itemized.

All cost records of the utility (such as those listed below) must be identified in the utilities records with the specific utility relocation job.

Vendor's Invoices
Material Issue Tickets
Material Returned to Stores Tickets
Mileage Reports
Equipment Usage Records
Expense Accounts, signed by employee and approving superior
Payroll Records, including time books, rate cards, etc.
Any other written records of the utility which identify the costs incurred with the specific Highway construction job, e.g.; Freight tickets, rental equipment invoices, etc.

Utilities shall maintain all books, documents, papers, accounting records and other evidence pertaining to costs incurred and make such materials available at their respective offices at all reasonable times during the contract period and for three (3) years from the date of final payment under the contract for inspection by the State, Federal Agency or any authorized representatives of the Federal Government and copies thereof shall be furnished if requested.

Salaries and Wages

Direct Labor Charges

When supported by adequate records, salaries and wages billed at actual rates for productive labor hours; retroactive pay adjustments; and expenses paid by a utility to individuals during the period of time they are directly or incidentally engaged in the utility relocations are reimbursable. Rates charges must be those paid employees by the utility in its normal operations.

Indirect Labor Charges

Costs to the utility for vacation, holidays, sick leave, company-sponsored benefits and similar costs incident to labor employment will be reimbursed when supported by adequate records.

Such indirect labor costs should be distributed as a percentage of the direct labor charged to the project. The proper percentage to be applied to direct labor charges for indirect labor costs can be established by dividing the actual expense to the utility for ordinary labor fringe benefits during the most recent twelve (12) month period prior to the relocation work is performed by the total productive payroll expense of the utility during the period.

Indirect labor charges normally include items of expense or costs which vary in direct ratio to the amount of the labor charges. Based on experience of the utility company, the following items are usually included in the calculation of a variable percentage figure which is applied to the total labor cost of the project in order to arrive at a cost item to be charged to capitalized or reimbursable projects, or as an expense item currently charged to operations.

Payroll Taxes
Vacation Pay
Retirement Reserve
Sick Leave Reserve
Hospitalization Insurance
Workmen's Compensation Insurance
Other expenses normally attributable to payrolls

Direct charges to the job for non-productive time such as vacation, sick leave, etc., will not be reimbursed. Example: A utility charges vacation time to the highway job on the basis that the employee would have engaged in this work had he been on the job. Although this may be the regular policy of the utility, this method is not acceptable and such charges will not be reimbursed.

Consultant and Contract Technical or Professional Services

Where a utility is not adequately staffed to perform the relocation, the amounts paid to engineers, architects, and others for required technical services (when approved in advance of any such work by the Utilities Section) will be reimbursed. Approval will not be given to fees for such technical services which are determined on the basis of a percentage of the total actual or estimated cost of the relocation.

Equipment

Where a utility does not have the necessary equipment available to perform the required work, reimbursement will be limited to the amount of rental paid to the lowest bidder following appropriate solicitations for quotations. In the event of any emergency, such as breakdown of Utility's own equipment, reimbursement will be allowed for rental of equipment at the lowest rates available. Existing continuing contracts for rental of transportation and heavy equipment, which the utility determines to be the most advantageous in its normal operations, shall be considered to comply with these requirements. Arbitrary or otherwise unsupported use charges, whether or not the equipment is owned by the Utility, will not be reimbursed.

Where a utility uses its own equipment on a reimbursable relocation project a rental rate must be developed for each specific class of equipment (auto, pickup, trucks, backhoes, dossiers, etc.). Costs used in developing the rental rate may be depreciation, fuel, oil, repairs and tires, insurance, licenses and taxes. The rental rate for each class of equipment can be established by dividing the total operating costs for each class of equipment during the twelve (12) month period in which the relocation work was performed by the actual miles or hours used during the same twelve (12) month period. The utility may also develop the rate on a semi-annual, quarterly or monthly basis.

When the utility does not have adequate records to support the cost distribution rates charged for its equipment, a rate must be negotiated for each type of equipment used for which payment will be requested. Such rates must be negotiated and approved by the Department prior to the work being done in order to be reimbursable.

In lieu of a negotiated rate for its equipment (when the utility does not have adequate records to support a cost distribution rate), the fuel, lubricants, minor repairs, and other direct costs of operation incurred while the equipment is used on the job may be reimbursed; however, the utility must maintain a record of the expenditures identifying them with the piece of equipment and identifying its use with the project. An acceptable

basis for distribution of any operating expenses that are allocatable to the cost of the relocation must be determined and approved by the Department prior to using the item of equipment. Thus, an approved basis would be required to claim reimbursement for depreciation, tires, batteries, licenses, insurance, painting, and like expenses that are applicable to more than one job or operating function, or to a period of use longer than the duration of the highway utility relocation project.

Materials Installed

Materials installed and supplies used shall be billed at inventory prices when furnished from the Utility's stocks, and at actual cost to the Utility when the materials and supplies are not available from the utility stocks and must be purchased for the relocation. Major material used in construction but not shown in the initial estimate, or supplemental change authorization, or by letter approval of the State, will not be reimbursed.

Materials Removed

Materials recovered from temporary use in connection with a highway project, and which are in suitable condition for reuse by the utility, shall be credited to the cost of the project at stock prices charged to the job, less ten per cent (10%) for loss in service life, if claimed by the utility. The State shall have the right to inspect all recovered materials not classified reusable by the utility. (See last paragraph in this section).

Materials recovered in suitable condition for reuse by the utility in connection with construction or retirement of existing facilities shall be credited to the cost of the project at current stock prices. When the utility returns recovered material to its Materials and Supply Account at original cost, or at a percentage of current price new, as a consistent practice in its normal operations, the work order shall receive credit accordingly. The foregoing shall not preclude any additional credits when such credits are required by law or regulations.

Items of materials recovered, both from the existing facility and from temporary use, in condition or lengths unsuited for acceptance for reuse by the utility, and which are determined to have a sale value, shall be disposed of as follows:

1. Sold following an appropriate solicitation for bids to the highest bidder.

2. When the utility regularly practices a system of disposal by sale (which it has determined to be the most advantageous in its normal operations), credit shall be given at the going prices for such used scrap materials as are supported by the records of the utility.

~~The State's pre-designated engineer on the project, or other authorized State Highway employee, shall have the right to inspect recovered materials classified non-~~

reusable prior to disposal by sale or junked as scrap without sale or use value. This requirement will be satisfied by the Utility giving written notice to the State of the time and place the materials will be available for inspection. This notice is the responsibility of the utility, and it will be held accountable for the full value of materials disposed of without such notice.

Stores Handling

The costs of supervision, labor and expenses incurred in the operation and maintenance of storerooms and material yards,including storage, handling and distribution of materials and supplies are reimbursable. A rate or other equitable method of distributing these costs is acceptable as long as it is representative of actual cost to the utility. In no event will a combination of a billing of actual and direct costs and a rate representative of actual and direct costs on a highway project be reimbursed. Expenses which may be used in developing a rate for stores expense are storeroom labor, freight and express, storeroom office expense, salaries of storeroom maintenance expense, storeroom material handling equipment expense and other expenses connected with material handling. The rate can be established by dividing the total stores expense for a twelve (12) month period in which the relocation work was performed by the total amount of stores issued in the same twelve (1 2) month period.
Construction Overhead

Construction overhead costs are those overhead costs which would not have been incurred if construction had not been undertaken.

In order that each job or unit shall bear its equitable proportion of Overhead Construction costs, all such costs not chargeable directly to construction accounts, (such as general engineering and supervision, general office salaries and expenses, construction engineering and supervision by others than the accounting utility, legal expenses, insurance, pensions, taxes, and the like) shall be allocated on the basis of the amount of such overheads reasonably applicable thereto. These instructions shall not be interpreted as permitting the addition to utility accounts of arbitrary percentages or amounts to cover assumed overhead costs, but require the assignment to particular jobs of actual and reasonable overhead costs.

The proper percentage to be applied to construction costs can be established by dividing the total construction overhead costs during the twelve (12) month period in which the relocation work is performed by the total direct labor costs for the same twelve (12) month period.

The following is an example of some of the overhead expenses which would have occurred whether or not the relocation work was accomplished and may not be allowed as expenses for relocation cost reimbursement.

Advertising

~~Bad Debts~~
~~Contingency Reserves~~
~~Contributions~~
~~Salaries and Fees of Board of Directors~~
~~Entertainment~~
~~Federal and State Income Taxes~~
~~Fines and Penalties~~
~~Home Office Operations (except direct relationship to relocation cost)~~
~~Interest during Construction~~
~~Insurance not related Directly to Project~~
~~Life Insurance Premiums with Company as Beneficiary~~
~~(NOT employee fringe benefit)~~
~~Specific Legal and Accounting unless it is for the Project~~
~~Losses on Sale of Capital Assets~~
~~Losses from Other Projects~~
~~Resource Planning~~
~~Research Programs~~
~~Sales Promotion~~
~~Special Bonuses not Part of General Conditions of Employment~~
~~Stock and Stockholders Expense~~
~~Special Management Studies~~
~~Taxes and Expenses in Connection with Financing~~

~~The records supporting the entries for overhead costs shall be so kept as to show the total amount, rate, and allocations basis of each additive and be subject to audit by representatives of the State and the Federal Agency.~~

~~Insurance~~

~~Premiums paid to an insurance company for Workmen's Compensation, Public Liability and Property Damage Insurance will be reimbursed where, and to the extent it is determined that the amounts of the premiums are the products of the proper rates applied to the amounts of paid salaries and wages, exclusive of vacation pay or allowances, and are acceptable to the State and Federal Agency.~~

~~Contracts~~

~~Contracts may be entered into by the utility for facility relocation when a clear showing is made that it is to the best interest of the State, or that the utility is not adequately staffed or equipped to perform the work with its own forces. Such contracts must have the prior approval of the Utilities Section of the Department before they are executed.~~

~~If reimbursement is to be requested, any contract to perform work in connection with the utility relocation should be awarded to the lowest qualified bidder who~~

submitted a proposal in conformity with the requirements and specifications as set forth in an appropriate solicitation for bids. Federal and State regulations relating to (CONFLICT of INTEREST) require low bid contracts awarded to related parties or parties with a financial interest to be for ACTUAL COST only (without profit). (For the permissible exception, see last paragraph under Contracts).

Subject to prior approval by the Department, existing written continuing contracts may be used for relocation work where it is demonstrated that such work is regularly performed for the utility under such contracts at reasonable costs. This may include existing continuing contracts with another utility. Where such other Utility has an ownership interest in the facility to be relocated, the inter company profit will not be reimbursed.

When work is to be done by both company forces and by contract, the attachments to the utility agreement should specifically describe the portion of the work to be done by each. For example: Where right of way clearing is to be performed by contract forces, the name of the contractor and the items of work covered by the contract should be clearly set forth in the utility agreement or attachments thereto.

Where the utility proposes to contract outside the foregoing requirements for work of relatively minor cost or nature, the Utility will be reimbursed provided it is demonstrated that such requirements are impractical and the utility's action did not result in an expend iture in excess of that justified by the prevailing conditions.

Easements

Costs for utility easements located outside publicly owned lands or highway rights of way and costs of acquisition incident thereto incurred by a utility subsequent to authorization by the Highway Department may be reimbursed.

To properly document its records as to justification for the amounts paid for easements, the utility shall determine and record its valuations of the easements to be acquired prior to negotiations therefor. These costs should not exceed the reasonable and customary cost for utility easements in the area.

Improvements

Plant Betterment's (Specific Items)

Any increases in the functional capacity of, or service improvements in, the replacement facility over the replaced facility, either through the use of materials, techniques or methods, will be considered a betterment; and except where such betterment's are required and made necessary by highway construction, credit for the in place cost of the betterment will be allowed against the total cost of the adjustment.

Extended Service Life (Expired Service Life Credit)

In any instance where the relocation involves the substitution of a replacement facility for an existing facility, a determination shall be made whether a credit is due to the project for the value of the expired service life of the facility being replaced, except where such facility involves only utility line crossings of the highway or segments of a utility line other than utility line crossings of the highway, less than one mile in length, provided the replacement facility for such a segment is not of greater functional capacity or capability than the one it replaces, and includes no betterment's.

The following shall constitute prima facie evidence that a credit is due to the project for the value of the expired service life of the facility being replaced:

(1)Where the replacement facility is functionally equal to the existing facility which it replaces.

(2)Where the replacement facility is other than a segment of the utility's service, distribution or transmission lines.

(3)Where the replacement facility involves betterment's, or is of greater functional capacity or capability than the one it replaces, except for utility line crossings of the highway.

The credit to be given shall be in an amount bearing the same proportion to the original cost of the facility being replaced as its existing age bears to its estimated total life expectancy.

$$\frac{\text{Existing Age}}{\text{Estimated Total Life Expectancy}} \times \text{Original Cost} = \text{Expired Service Life Credit}$$

Field Change, Extra Work Order or Agreement Modification

When a "substantial" change from the work authorized in the approved Agreement is required, reimbursement shall be limited to the costs incurred for work described in a Utility Change Order, Extra Work Order, or by a Modification of the Approved Agreement that has written authorization of the State. When there is any doubt as to the necessity for obtaining formal and prior approval of the proposed change, the Utilities Section of the Department should be contacted before such work is performed.

In the absence of a standing bond as described in Section 6.4, an individual deposit or bond to guarantee restoration of the highway right of way or property is required prior to the issuance of a permit. The District Engineer will determine the amount of the deposit or bond required. The deposit or bond will be used by the AHTD in restoring the highway right of way or property to its former condition if the utility owner fails to do so. The deposit or bond must be provided in the name of the utility owner.

6.6 UTILITY OWNER RESPONSIBILITY

Regardless of the permit type, the utility owner shall do the following when performing any work on the highway right of way:

- Notify the District Engineer four (4) AHTD business days prior to beginning work.
- Maintain a copy of the Utility Permit on the job site throughout the work period.
- Ensure that work is accomplished in accordance with the approved permit and, unless the District Engineer gives prior approval, any installation, which deviates from the approved permit, is subject to removal from the highway right of way.
- Notify the District Engineer upon completion of the installation for a final inspection and release of the deposit or bond.

Violation of these requirements may result in the AHTD ordering work to be stopped or forfeiture of bond.

If at any time a change or improvement in the highway necessitates a relocation or removal of the facility installed under a permit, it shall be at the expense of the owner.

6.7 ACCEPTANCE OF PERMIT

Work performed under a permit shall constitute full acceptance of all applicable requirements, laws, rules, regulations and the specific terms and provisions as set forth in, or attached to, the permit.

6.8 TRANSFER OF OWNERSHIP

If a change in ownership takes place, the new owners shall give written notice of such change to the Utilities Section within ninety (90) days.

6.9 SAFETY

By undertaking work within the highway right of way, the utility owner agrees to the applicable requirements and conditions in Section 2.4.

6.10 WORKING CONDITIONS

By undertaking work within the highway right of way, the utility owner agrees to the applicable requirements and conditions in Section 2.5.

6.11 EMERGENCY CONDITIONS

1) In the event of conditions where immediate action by the utility owner is necessary for the protection of persons or property, or to minimize damage to or loss of the utility owner's facilities or highway property, a permit is not required prior to the commencement of work.

2) The utility owner, at its own responsibility and risk, may undertake the necessary repairs and shall notify the District Engineer and the Utilities Section of such work as soon as practicable but no later than the next AHTD business day.

3) If the situation necessitates closure of traffic lanes, the utility owner shall immediately notify the office of the District Engineer.

4) The utility owner shall not undertake chemical vegetation control on an emergency basis.

6.12 RIGHT TO REVOKE

The Director of Highways and Transportation is authorized to revoke or annul a permit or agreement, subject to giving the utility owner reasonable notice. Justifications for revocation include, but are not limited to the following:

- Failure to comply with the provisions of this Policy.
- Failure to comply with the terms and conditions of the permit or agreement.
- If the utility occupancy becomes an interference to the use of the highway right of way for highway purposes.

7 MISCELLANEOUS

7.1 PRIVATELY OWNED FACILITIES

Privately owned facilities are lines that convey or transmit communications, electricity, gas, oil, water, or any other similar commodities, but are devoted exclusively to private use. This includes privately owned lines from gas and oil wells, lines owned by oil companies within refinery and oil storage complexes, irrigation lines and any other private purpose lines or service lines owned by individuals or companies.

A. Permanent Installations

1) Longitudinal installations of permanent private lines are not allowed.

2) Permit applications are required for permanent private crossings, and all private installations allowed to cross State highway right of way shall follow the applicable requirements of this Policy.

B. Temporary Installations

1) Longitudinal installations of temporary private lines are not allowed.

2) The placement of a temporary line to cross a highway right of way shall be permitted through an encasement under the roadway installed in accordance with this Policy, or it may be placed through an existing drainage structure with a minimum of twenty (20) feet of clear waterway opening if approved by the District Engineer.

3) An exception may be granted to place a temporary line through an existing drainage structure with less than twenty (20) feet of clear waterway opening providing a drainage analysis is made by a qualified individual and submitted by the owner. The decision whether to allow the use of the drainage structure for a temporary crossing will be made by the AHTD based on the impact of the drainage analysis.

4) Regardless of size, if the AHTD allows the use of any existing bridge opening or highway drainage structure for the placement of a temporary line, the utility

owner will be required to assume all responsibility for any damages or violations of state or federal environmental law or regulations caused by the placement of the line.

7.2 UTILITIES NOT SPECIFICALLY COVERED

Various types of utilities not specifically covered herein will be considered within the provisions of this Policy in accordance with the nature of the utility.

It shall be a general practice to consider all lines carrying caustic, flammable, or explosive materials under the provisions for high-pressure gas and liquid fuel lines.

7.3 HIGHWAY LIGHTING

Requests for permits to install or renovate highway lighting systems by electric utility owners or municipalities shall be treated as special cases. Each request shall be submitted to the District Engineer for further review and recommendation as to acceptability of the design, adequacy of lighting, and safety factors. In addition, the permit must meet the other applicable provisions of this Policy.

7.4 CORRECTION OF HAZARDOUS INSTALLATIONS

When it becomes evident that an existing utility facility has become a hazard to the safe operation of a highway facility, the AHTD will require the utility owner to correct the condition at the utility owner's expense, regardless of when the hazard was discovered.

7.5 ABANDONMENT OF FACILITIES

If a utility owner abandons any portion of its facilities located on highway right of way, it must notify the AHTD of that status in writing and indicate whether the facility will be removed or abandoned in place. The notification must include a statement certifying that the abandoned facility does not contain, or is not composed of, hazardous or contaminated materials.

1) The utility owner shall indicate, on the plans, the location, size, and disposition for all utility facilities being abandoned.

2) If a utility owner discontinues use of an above ground facility, the facility shall be entirely removed from the highway right of way within six (6) months after its use is discontinued, unless the AHTD grants written approval for a time extension. All removal costs shall be the responsibility of the utility owner.

3) If a utility owner discontinues use of an underground facility but desires to leave it in place on the highway right of way, written approval to do so shall be obtained from the AHTD and a record shall be retained in the utility owner's permanent files in order that such facility may be accurately located in the field. The AHTD may, at its sole discretion, require abandoned and out of service pipes and appurtenant facilities (e.g., manholes, pull boxes, etc.) to be filled in or removed. If so required, the utility owner shall fill in or remove the abandoned facilities within six (6) months after its use is discontinued, unless the AHTD grants written approval of a time extension. All necessary removal and related costs shall be the responsibility of the utility owner.

4) If a utility owner discontinues use of a facility on a highway bridge or structure, the facility shall be removed within six (6) months, unless the AHTD grants written approval of a time extension. Any abandoned or out of service facilities that are removed from a bridge must be done so utilizing removal procedures approved by the AHTD. All removal costs shall be the responsibility of the utility owner.

5) If the owner fails to remove the abandoned utility facilities the AHTD may do so at the expense of the utility owner.

6) Abandonment shall not be construed as a change in ownership of the facility.

8 REIMBURSEMENT FOR RELOCATION

8.1 PURPOSE

To prescribe the policies and procedures for reimbursement of eligible costs associated with the relocation of utility facilities on AHTD highway construction projects, and to authorize the Utilities Section to make all contractual arrangements with utility owners.

8.2 AUTHORITY

The Federal-Aid Policy Guide 23 CFR 645A, as amended and supplemented, is adopted by reference herein with the same force and effect as if recited at length. Determination of reimbursement eligibility pursuant to applicable State Law, Statutory, and Case is generally interpreted by the AHTD's Legal Counsel.

8.3 APPLICABILITY

This policy applies to all utility owners with facilities affected by a highway construction project.

8.4 REIMBURSEMENT ELIGIBILITY

A utility owner will be considered eligible for reimbursement if they have the right of occupancy in the existing location because of holding the fee, an easement or other real property interest, the damaging or taking of which is compensable in eminent domain. The general criteria for determining eligibility for reimbursement for relocation costs shall be applied on the basis of the factual location of the existing utility facility in relation to existing highway right of way.

1) Existing utility facilities located on private property, street right of way of any incorporated town or city, county road, dedicated urban development road, and/or private road right of way which were not a part of or on the State Highway System at the time the facilities were installed, shall be considered eligible for reimbursement.

2) Utility facilities presently located on existing AHTD highway right of way by permit or unwritten consent of the AHTD are not eligible for reimbursement.

8.5 RIGHT OF WAY

1) A utility facility located on private right of way or easement (outside the existing highway right of way) is considered to be eligible for reimbursement of the cost of replacement right of way. Copies of an easement or affidavit verifying the utility owner's right of occupancy must be submitted with the relocation proposal.

2) There will be no charge to the AHTD for that portion of the utility owner's existing private right of way or easement being transferred to the AHTD for highway purposes.

8.6 PRELIMINARY ENGINEERING

1) Initial authorization on highway projects is for preliminary engineering by the utility owner's personnel (force account), the cost of which will be included in the subsequent relocation agreement.

2) When the utility owner is not adequately staffed with technical personnel or the present workload would be prohibitive to perform the necessary preliminary engineering, a consulting engineer may be employed by the utility owner. If any part of the consultant's entire fee is eligible for reimbursement, the utility owner shall submit a written request to the Utilities Section requesting approval for the use of a Consultant.

3) Preliminary engineering costs are reimbursable to the utility owner only to the extent that the existing utility facilities that require adjustment are eligible for reimbursement.

4) Additional information regarding the use of consultants for preliminary engineering services is contained in Section 10.

9 RELOCATION PROCESS

9.1 AGREEMENTS AND AUTHORIZATIONS

1) After notification by the Utilities Section of an impending highway project, the utility owner is obligated to make the necessary arrangements for planning and accomplishing the relocation work required by the highway construction.

2) The utility owner is responsible for the design and integrity of the utility facilities to be installed within highway right of way, in accordance with this policy.

3) The utility owner's responsibilities include but are not limited to the following functions:

   a) Determination of any and all conflicts the existing utility facilities have with the proposed highway construction.

   b) Preparation of detailed cost estimates and plans providing for the relocation work required to clear the highway construction. This information shall include sufficient detail to provide the Utilities Section a reasonable basis for analysis.

   c) Determination of whether the work will be accomplished by force account, awarded on a continuing contract or let to contract to the lowest qualified bidder.

   d) Submission of a complete relocation proposal, including the detailed cost estimate and plans, within the time period specified by the AHTD. The utility owner is expected to submit the relocation proposal within the time period specified so as not to delay or interfere with the schedule for the proposed highway construction.

4) In some instances a combination of force account and contract labor may be required. Work normally done for a utility owner by a contractor under an existing continuing contract may be acceptable, provided the established rates are reasonable.

5) After the Utilities Section has reviewed and approved the plan information and cost estimate (if applicable), work authorization will be given by one of the following methods:

   a) Nonreimbursable relocation work order issued when the utility relocation work is 100% nonreimbursable.

   b) Work Order with Utility Relocation Agreement (Relocation Agreement). If the utility owner's relocation work is reimbursable, or partially reimbursable, the Utilities Section will prepare a Relocation Agreement. The Relocation Agreement may be the lump sum method (confirmation by audit is not required) or the actual cost method (subject to audit because billing will be for actual expenditures).

9.2 RELOCATION

1) After issuance of a work order by the Utilities Section, the utility owner is expected to begin the relocation work and exercise due diligence to complete the work within the time periods specified in the work order so as not to delay or interfere with the highway contractor's operation.

2) All utility work shall be undertaken and completed in accordance with the approved plans, specifications, Relocation Agreement (if applicable) and approved change orders.

3) Changes in the work from that shown in the approved relocation plan must be authorized by the Resident Engineer prior to the implementation of the change in order for the cost to be eligible for reimbursement.

4) Utility owners shall notify the Resident Engineer not less than four (4) days prior to starting work in order that observation and inspection of the work may be provided.

5) The utility owner shall notify the Resident Engineer on the date the work is completed so that a final inspection by the Resident Engineer may be scheduled.

9.3 INSPECTION

The Resident Engineer is responsible for the administration and inspection of utility relocations. Both reimbursable and nonreimbursable relocation work is subject to inspection by the Resident Engineer to ensure proper installation as approved in each utility's work order. The Resident Engineer has the authority to order the stoppage and/or removal of any work not in compliance with the Relocation Agreement or this Policy.

9.4 RELOCATION CHANGE ORDERS

When a change in the planned adjustments, including quantities or types of materials, proposed location of facilities, or additional work is identified, the utility owner shall inform the Resident Engineer of the reason for the requested change along with a detailed estimate of the revised cost, change in quantities or items to be installed, and plan sheets showing the requested changes.

The Resident Engineer will review the requested change and, if recommended, prepare the appropriate documentation, as necessary.

10 UTILITY ENGINEERING BY CONSULTANT

As noted in Section 8.6 2), a utility owner may be unable to perform preliminary or construction engineering work with their own forces. A consultant engineer may be employed by the utility owner under the following conditions:

1) For any part of the consultant's fee to be eligible for reimbursement, the utility owner shall submit a written request to the Utilities Section requesting approval for the use of a consultant.

2) Consultant engineering cost is reimbursable only to the extent that the cost to relocate existing facilities is determined to be eligible for reimbursement.

3) Consultant engineering fees must be based on actual cost with a fixed amount for profit. However, reimbursement will not be allowed for profit in excess of 12% of the total cost for consultant engineering.

4) Reimbursement of preliminary engineering fees may be handled on a lump sum basis when the work is clearly defined and the fee is relatively small. However, a breakdown of the fee is required.

5) Construction engineering fees shall be handled on an actual cost basis.

10.1 PRELIMINARY ENGINEERING PROCEDURES

1) When the use of a consultant has been approved, the utility owner will be authorized to have the consultant proceed with preparing a preliminary engineering fee estimate and contract. The engineer's fee shall not be based on a percentage of the cost of relocation.

2) The preliminary fee estimate, contract documents and the consulting engineer's certification, in the form designated by the AHTD, shall be submitted for Utilities Section approval.

3) The Utilities Section will then prepare a Preliminary Engineering Agreement (PE Agreement) to be executed by the AHTD and the utility owner. The consultant will be required to begin and complete the preliminary engineering contractual obligations within a specified number of days.

4) Following proper execution of the PE Agreement, the Utilities Section will issue a preliminary engineering work order to the utility owner authorizing the consultant to begin the preliminary engineering of the work encompassing the following:

   a) Field surveys and investigations, including any and all work to secure the proper information to prepare plans, specifications, cost estimates and necessary easements.

   b) Preparation of complete and detailed plans of the existing and proposed facilities with an itemized cost estimate for the relocation work.

   c) Preparation of contract documents and specifications incident to the advertisement of bids. One (1) copy of the specifications is required in the initial submittal.

   d) Submission of all necessary documents through the utility owner to the Utilities Section and to other agencies having jurisdiction when required.

5) After approval of the cost estimate and plans, a Relocation Agreement will be prepared and submitted to the utility owner for execution.

6) After receiving the fully executed Relocation Agreement, the Utilities Section will authorize the utility owner to proceed with advertising for bids and/or acquisition of necessary right of way.

7) After the bids have been opened, the utility owner will submit one copy of each bid received and the bid tabulation sheet to the Utilities Section with a request for the AHTD's concurrence in award of the contract to the lowest qualified bidder.

8) After concurrence, the utility owner shall submit two (2) copies of the executed contract and two (2) sets of the completed specifications to the Utilities Section. After these documents have been approved, the Utilities Section will issue a contract work order to the utility owner.

10.2 CONSTRUCTION ENGINEERING PROCEDURES

Supervision and inspection by the consultant during the construction work will be considered as a part of the Relocation Agreement and reimbursed separately from the PE Agreement. These activities will consist of, but not be limited to, the following:

1) Field staking for locations and grades of the relocated work.

2) Supervision and inspection of the construction work.

3) Preparation and calculation of periodic estimates (if requested).

4) Preparation and submission of change orders (if required).

5) Coordination with AHTD and utility owner representatives.

6) Preparation and submission of billings and one (1) complete set of as-built plans.

10.3 ENGINEERING COSTS

Utility owners utilizing consulting engineers for design or construction engineering services shall comply with the following requirements.

1) OVERHEAD RATES

Overhead rates must be computed in accordance with Federal Acquisition Regulations, 48 CFR 31 and AASHTO Uniform Audit and Accounting Guide for Audits of Architectural and Engineering (A/E) Consulting Firms.

23 CFR Part 645.117(d) states in part, “Overhead and indirect construction costs not charged directly to work order or construction accounts may be allocated to the relocation provided the allocation is made on an equitable basis. All costs included in the allocation shall be eligible for Federal reimbursement, reasonable, actually incurred by the utility, and consistent with the provisions of 48 CFR Part 31.”

2) PROFIT

Total profit to be reimbursed for consultant engineering services cannot exceed 12% of the total contract engineering expenditures.

3) DIRECT JOB EXPENSE

These types of expenses must be itemized, i.e. mileage, copies, postage, meals, lodging, etc.

a. **Mileage** – Rate per mile must not exceed current reimbursement rate for private vehicle use authorized in the AHTD Accounting Manual.

b. **Meals and lodging** – Daily rates must not exceed current reimbursement rates authorized in the AHTD Accounting Manual.

4) INVOICES

Must include:

a. AHTD job number

b. Project Location/Description

c. Time period for the work included in the invoice

d. Name, telephone number and email address of a contact person

e. Signature of a consultant's representative and signature date

f. Summary comparison of actual project preliminary engineering costs to the estimated costs for each category from beginning of work to date

g. Detail of costs incurred

h. Total previous payments

i. Supporting documentation for overhead and indirect expense rates (initial invoice)

j. Explanation for any overruns of hours, rates, direct costs, additional items of work or changes in scope of work

5) FINAL CERTIFICATION OF INDIRECT COST RATE

The following Certificate of Final Indirect Costs must be signed by the Consultant's Chief Financial Officer or Vice President and submitted with the Final Invoice.

Certificate of Final Indirect Costs

AHTD Job No. _____

Utility Name: _____

This is to certify that I have reviewed this proposal to establish final indirect cost rates and to the best of my knowledge and belief:

1. All costs included in this proposal dated _____ to establish final indirect cost rates for (identify period covered by rate) are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) and its supplements applicable to the contracts to which the final indirect cost rates will apply; and

2. This proposal does not include any costs which are expressly unallowable under applicable cost principles of the FAR or its supplements.

Firm: _____

Signature: _____

Name of Certifying Official: _____

Title: _____

Date of Execution: _____

10.4 ENGINEERING CHANGE ORDERS

When the utility owner identifies a need for change to the quantity, type or scope of preliminary or construction engineering, the utility owner shall inform the Utilities Section Head or Resident Engineer, as applicable, of the reason for the requested change along with a detailed estimate of the revised cost.

The Utilities Section Head or Resident Engineer will review the requested change and, if recommended, prepare the appropriate documentation, as necessary.

11 RELOCATION PROPOSAL STANDARDS

11.1 REIMBURSABLE PROPOSALS

When all or part of the cost of required relocation of a utility owner's facilities is determined to be reimbursable, the Utilities Section shall be furnished the following:

1) One (1) copy of a detailed cost estimate.

2) Three (3) sets of detailed relocation plans.

3) A letter transmitting the cost estimate and plans which includes statements to indicate:

   a. How many calendar days, after being authorized, it will take to begin the work.

   b. The number of working days required for completion of the relocation work.

   c. A statement that no arbitrary percentages or amounts have been added to cover assumed costs.

11.2 MINIMUM REQUIREMENTS FOR A COST ESTIMATE

A utility owner shall use an accounting system prescribed by the Federal or State regulatory body under which it operates to accumulate costs as required in Section 12.4.

1) The elements or components of a cost estimate should, at a minimum, include the following:

   a) Preliminary Engineering costs

   b) Right of way cost

   c) Cost of replacement facility, with betterments

   d) Cost of removal of replaced facility

   e) Cost of restoring removed material to usable condition (if applicable).

f) Credit for material returned to stores or salvageable material.

g) Credit for plant betterments (improvements in the utility facility not necessitated by the highway construction). In the respective components, all items of labor, material, and equipment should be itemized to show quantity, type, unit cost, and extended cost, and be summarized by the various categories and recapitulated to produce the net estimated cost of the relocation for betterments.

2) Preliminary engineering costs, right of way costs (including clearing), and construction supervision and inspection costs are to be shown as separate items.

3) If overhead cost amounts are determined by using percentage factors, labor loadings, or some other similar method, an analysis of the basis for overhead cost computations setting forth the elements of overhead costs accumulated in the computations must be furnished.

4) Generally, the relocation of a utility owner's facilities will be accomplished by company forces (force account). When certain items of the relocation are to be performed by contract forces, costs covering these items shall be shown separately in their respective categories.

5) The reimbursement eligibility ratio, if relocation costs are less than 100% eligible for reimbursement, should be developed, explained, and then applied in the estimate to show the proportionate costs of the relocation to be borne by the utility owner and the AHTD.

11.3 NONREIMBURSABLE RELOCATION PROPOSALS

For fully nonreimbursable relocations, the utility owner shall submit:

1) A statement that the utility owner is not seeking reimbursement for the relocation.

2) Three (3) sets of the detailed relocation plans.

3) The number of calendar days required to begin relocation work.

4) Number of working days required to complete the relocation work.

11.4 MINIMUM INFORMATION FOR RELOCATION PLANS

1) Plans, whether for reimbursable or nonreimbursable relocations, shall, as a minimum, contain the following elements:

   a) Be drawn to scale. (Utility owners shall utilize electronic files or reproduce the applicable portions of the plans and profile print furnished by the AHTD and add the necessary detail and notations to portray accurately the proposed relocation in the facilities as directly oriented with the highway construction plans).

   b) Show the existing and proposed highway right of way and distances from the centerline of survey.

   c) Show highway centerline stations at 100-foot intervals and station number designations at 500-foot intervals.

   d) Show the existing and proposed facilities clearly referenced by distance from and to exact highway survey centerline stations.

   e) Show quantity, size, class, and dimensions of all major items of material.

   f) Show, in appropriate symbol and plan location, all major facilities existing, relocated and retired or abandoned, and indicate reimbursement eligibility status of each existing facility.

   g) Have a legend indicating the symbol used for the various types of facilities, work to be done, and reimbursable status.

   h) Show proposed plant betterments to be made for the convenience of the utility owner either by work or symbol at the appropriate locations.

   i) Show control of access lines as well as right of way lines on fully or partially controlled access facility projects.

j) Show a “North Arrow” to indicate true cardinal directions, and show in a title block the utility owner’s name, the highway project designation by Job Number and Job Name as indicated on the title sheet of the AHTD plans.

k) Show, where facilities are jointly used, such as power and telephone poles, the ownership of the structures as well as the “joint user(s)”.

l) Show, for an underground crossing, a profile of the crossing.

m) Show, for overhead crossings, the minimum clearance after relocation above the new road surface.

2) Describe by narrative, work to be done.

3) Provide a traffic control plan, as appropriate.

12 ACCOUNTING AND RECORD REQUIREMENTS

12.1 PURPOSE

If the relocation of a utility owner's facilities is determined to be reimbursable, the process for reimbursement shall be in accordance with the following policies and procedures. These are the minimum requirements for requesting reimbursement, documenting expenditures and processing payments.

12.2 PRELIMINARY ENGINEERING AGREEMENT

An executed PE Agreement establishes the estimated cost for preliminary engineering services if a utility owner is not adequately staffed to carry out the necessary preliminary engineering required for the relocations. Reimbursement will be made at the same ratio as the relocation of the facilities is eligible. The PE Agreement may be on an actual cost or lump sum basis.

12.3 UTILITY RELOCATION AGREEMENT

The executed Relocation Agreement establishes the estimated cost and reimbursement factor for the relocation of a utility owner's facilities for a highway project. The Relocation Agreement may be on an actual cost or lump sum basis.

12.4 ACCOUNTING SYSTEM

A utility owner shall use an accounting system prescribed by the Federal or State regulatory body under which it operates, or in cases where a utility owner does not use a prescribed accounting system, it shall use its established system of accumulating specific work order costs or establish a system of accounts which will provide for accumulating direct and related cost of the relocation. In any case, the system of accounts used must be in form and detail as will identify each claimed item of cost with the particular project. Costs for which all or partial reimbursement will be claimed must be completely documented and clearly identified with the specific highway project.

12.5 CONFORMITY OF ESTIMATE AND INVOICES

The preliminary cost estimate and actual cost invoices must be prepared in conformity with the same accounting procedure and use comparable unit descriptions, quantities and price structure by cost categories such as labor, equipment, overheads, materials used and recovered, etc. A comparison of the actual costs as billed will be made with the cost estimate used to prepare the Relocation Agreement to determine the invoice was prepared in the same manner as the estimate, and that all factors of cost are similarly itemized.

12.6 AVAILABILITY OF RECORDS

Utility owners, their consultants and/or contractors shall maintain all books, documents, papers, accounting records and other evidence pertaining to costs incurred and make such material available at their respective offices at all reasonable times during the contract period and for three (3) years from the date of final payment under the contract for inspection by the AHTD or Federal Highway Administration and copies thereof shall be furnished if requested.

12.7 BILLING INVOICES

The utility owner's records must fully support the invoiced amounts. The invoice must contain only those costs actually incurred as direct or related costs in the relocation or removal of the utility owner's facilities related to the specific highway project covered in the PE Agreement or Relocation Agreement. The invoice must reference the AHTD highway project number for which costs are incurred.

12.8 CONTROLLING DATES FOR INCURRING REIMBURSABLE COSTS

Costs incurred for work accomplished prior to receiving written authorization as noted below will not be eligible for reimbursement.

1) Preliminary Engineering - Date of the AHTD's written authorization to the utility owner to begin preparation of the preliminary plans and estimate of cost.
2) Relocation – Date of the AHTD's written authorization to the utility owner to begin its relocation work.

The utility owner will be notified, in writing, of the date(s) that preliminary engineering or utility relocation costs may be incurred.

13 REIMBURSABLE EXPENSES

13.1 DOCUMENTATION OF COST

All cost records must be identified in the utility owner's records with the specific relocation project. Guidelines for determining actual eligible costs shall be those contained in 23 CFR 645, Subpart A. Following are normal types of costs incurred for highway projects and the type of supporting documentation needed to support each.

13.2 DIRECT EXPENSES FOR LABOR

Salary and/or wage rates shall be calculated by classes on a monthly basis or labor hours by rate and amount for project. Overtime must be approved in advance by the AHTD and reported separately. This includes labor associated with preliminary engineering, construction engineering, right of way acquisition and force account construction.

The following direct labor additives may be included in direct expenses:

- Social Security
- Holiday Pay
- Vacation
- Sick Leave
- Retirement and Pension
- Unemployment Taxes
- Compensation
- Hospitalization and Liability Insurance

Such additives must be shown as a percent of direct labor expense and listed as a separate item. Utility owners may compute a cost rate including these additives or a prorated version, but must provide the items and base factors of the computation.

Approval will not be given for fees paid to engineers, architects, and others for required technical services when such fees are determined on the basis of a percentage of the total actual or estimated cost of the relocation. These types of work shall not be undertaken until approval is given by the AHTD.

13.3 OVERHEAD COSTS

1) **Utility Owners** - Overhead costs include expenses for general engineering and supervision, general office services, legal services, insurance and other items. Overhead charges must be stated in detail.

   a) Costs not eligible for reimbursement include, but are not limited to, the costs associated with: advertising, sales promotion, interest on borrowings, the issuance of stock, bad debts, uncollectible accounts receivable, contributions, donations, entertainment, fines, penalties, sale and rate studies, lobbying, and research programs.

   b) Overhead and indirect construction costs not charged directly to work order or construction accounts may be allocated to the relocation provided the allocation is made on an equitable basis. All costs included in the allocation shall be eligible for Federal reimbursement, reasonable, actually incurred by the utility owner, and consistent with the provisions of 48 CFR Part 31.

   c) Rates shall be established on the basis of the prior year cost experience to avoid the fluctuations that occur with a month-to-month method. Once established and confirmed, the utility owner shall use the annual report for all billings in that year and include a schedule that shows the base figures and computations with the relocation proposal. If the rate changes prior to beginning relocation work, an updated schedule must be submitted with the first invoice.

   d) The records supporting the entries for overhead and indirect construction costs shall show the total amount, rate, and allocation basis for each additive, and shall be provided upon request and are subject to audit by AHTD and/or Federal representative(s).

2) **Consultants** – See Section 10 for information related to consultant overhead costs.

13.4 GENERAL INDIRECT EXPENSE

1) **Utility Owners** - A rate may be developed from actual experience or a rate of five (5) percent of total project costs may be used.

   a) Include a schedule that shows the base figures and computations with the relocation proposal.

   b) If the rate changes prior to beginning relocation work, an updated schedule must be submitted with the first invoice.

   c) The records supporting the entries for overhead and indirect construction costs shall show the total amount, rate, and allocation basis for each additive, and shall be provided upon request and are subject to audit by AHTD and/or Federal representative(s).

2) **Consultants –** See Section 10 for information related to consultant indirect expense rates.

13.5 MATERIALS EXPENSE

The utility owner shall, as necessary and appropriate:

1) Itemize all materials issued from stock for installation by type and show the number of items, average unit costs and amount. Items of new materials and supplies shall be billed at current stock prices when furnished from the utility owner's stock or at actual cost to the utility owner delivered to the project site when such materials must be purchased.

2) Itemize excess materials issued out but not used and show them as returned to stock for credit.

3) Provide a list, by vendor, of materials purchased directly for the project with a general description of the materials and total amount paid. Copies of invoices showing discounts, rebates, allowances and inter-company profits are to be attached.

4) Provide a list of salvaged materials returned to stores for reuse, less a consideration for loss in service life at ten (10) percent.

13.6 EQUIPMENT EXPENSE

1) In the accumulation of utility relocation costs necessitated by a highway project, costs incurred in the operation and use of equipment and transportation vehicles are reimbursable when properly supported. Vehicle number, description, size, date of use, per hour or per mile rates and total use, and the method for time and rate determination must be included with the invoice.

2) Expenses cleared through transportation and heavy equipment accounts may include depreciation; fuel and lubricants for vehicles (including sales and excise taxes); freight and express on fuel and repair parts; heat, light, and power for garage and garage office; insurance (including public liability and property damage insurance) on garage equipment, transportation equipment and heavy work equipment; license fees for vehicles and drivers; maintenance of transportation and garage equipment; operation of garages; and rent on garage buildings and grounds.

3) Equipment costs may include the costs of supervision, labor and expenses incurred in the operation and maintenance of heavy equipment and transportation equipment of the utility owner, including direct taxes and deprecation.

4) A particular class or type of equipment or vehicle may be charged to an individual account on an hourly rate or mileage depending upon the company's standard operating procedure in recording such costs.

5) Reimbursement of transportation and equipment costs will be limited to charges to an appropriate account for the cost of equipment used for the specific relocation project. Arbitrary or otherwise unsupported equipment use charges will not be reimbursed.

13.7 RENTAL OF EQUIPMENT

1) Where the utility owner does not have equipment available of the kind or type required to perform the necessary utility relocation, reimbursement will be

limited to the amount of rental paid to the lowest bidder following an appropriate solicitation for quotations from owner of the required kind or type of equipment.

2) In the event of an emergency, such as a breakdown of utility-owned equipment or there is a need for equipment not originally contemplated, reimbursement will be allowed for rental of equipment at the lowest rate available under the prevailing conditions. Such need must be approved by the Resident Engineer and documented in the diary.

3) Equipment rates should be based upon actual cost to the utility owner. Standard rates such as those published by the Associated Equipment Distributor may not be applied to utility-owned equipment since an increment of profit is included in the published rates, which is not reimbursable.

13.8 SMALL TOOL EXPENSE

Reimbursement for the use of small tools on a project will be made on the basis of tool expenses accumulated in and distributed through the utility owner's clearing accounts or other equitable and supportable allocation basis; otherwise, it will be limited to actual loss or damage during the period of use. In the latter case, the loss or damage shall be billed in detail and supported to the satisfaction of the AHTD.

13.9 CONTRACT LABOR

1) Utilization

Contracts may be entered into by the utility owner for facility relocation when it is clearly shown that it is in the best interest of the AHTD, or that the utility owner is not adequately staffed or equipped to perform the work with its own forces. Such contracts must have the prior approval of the AHTD before execution.

2) Reimbursement

If reimbursement is requested, any contract to perform work in connection with the utility relocation shall be accomplished by a contract secured under a fully competitive bidding process in accordance with the utility owner's normal bidding

process as required in 23 CFR 645.115. The contract shall be awarded to the lowest qualified bidder submitting a proposal in conformity with the requirements and specifications as set forth in an appropriate solicitation for bids that is approved by the Utility Section prior to advertisement. If a utility owner chooses to utilize other than the lowest qualified bidder, reimbursement will be allowed only for the amount of the low bid.

3) Continuing Contract

With prior approval by the AHTD, an existing written continuing contract may be used for relocation work where it is demonstrated that such work is regularly performed for the utility owner under such contracts at reasonable costs. A copy of the continuing contract must be submitted with the utility owner's proposal. This may include existing continuing contracts with another utility owner. Where such other utility owner has an ownership interest in the facility to be relocated, the inter-company profit will not be reimbursed.

4) Combined Contract and Force Account Work

When work is to be done by both company forces and by contract labor, the Relocation Agreement shall specifically describe the portion of the work to be accomplished by each. For example: Where right of way clearing is to be performed by contract forces, the name of the contractor and the items of work covered by the contract should be clearly set forth in the Relocation Agreement or attachments thereto.

5) Contract Work of a Minor Nature

Where the utility owner proposes to contract outside the foregoing requirements for work of relatively minor cost or nature, the utility owner will be reimbursed provided it is demonstrated that such requirements are impractical and the utility owner's action did not result in an expenditure in excess of that justified by the prevailing conditions. Approval for this type of contract shall be approved by the AHTD prior to incurring cost.

13.10 BETTERMENTS AND BETTERMENT CREDIT

1) General

In some cases, the utility owner may upgrade its facility during relocation. Betterments increase the facility capacity or improve transmission, including function and quality.

The AHTD only pays for a functional equivalent replacement of the impacted utility facility.

- The AHTD shall receive credit for the difference between the cost of the functional replacement of the original facility and the cost of the facility as constructed.
- The utility owner shall submit an estimate including any betterment for approval by the AHTD.

2) Exceptions

Some exceptions as outlined in CFR 23 645, Subpart A, Section 645.117(h), exist to the general rule.

The AHTD may reimburse for the following types of betterment:

- Those required by the transportation project or by State or Federal law or regulation
- Replacement devices or materials that are equivalent but not identical standards
- Replacement of devices or materials no longer regularly manufactured with next higher grade or size
- Those required by current highway or industry design practices and offering direct benefit to the transportation project

3) Amount of Betterment

The overall scope of the betterment will be determined when the Relocation Agreement is prepared and the utility owner's calculation of the betterment credit will be verified.

Betterment credit includes the cost of materials and the increased costs of engineering and installing the betterment facilities, such as additional engineering, special construction methods, and increased overhead.

14 SUBMITTAL OF INVOICES

14.1 PREPARATION AND PROCESSING OF PARTIAL INVOICES

Costs submitted for reimbursement must have actually been expended by the utility owner prior to including the expense on an invoice, unless the AHTD has previously given approval in writing for an alternate procedure. If expenses have been incurred but not paid, the expense should not be included on the invoice.

1) **Frequency** - Utility owners may submit periodic invoices for reimbursement of expenditures totaling $5,000.00 or more, no more often than once a month. One original invoice and supporting documentation must be submitted for progress billings.

2) **Method of Billing** – All progress invoices must include:

   a) AHTD job number

   b) Project Location/Description

   c) Utility owner work order number

   d) Time period for the work included in the invoice

   e) Name, telephone number and email address of a contact person

   f) Signature of a utility owner representative and signature date

   g) Summary comparison of actual project costs to the estimated costs for each category from beginning of work to date

   h) Detail of costs incurred with comparison to original contract or approved change order quantities

   i) Total previous payments

   j) Copies of canceled checks or other documentation of payment to contractors or consultants for costs included in the current billing

   k) Supporting documentation for overhead and indirect expense rates (initial invoice)

l) Explanation for any overruns of item quantities/amounts, additional items of work or changes in scope of work

3) **Payment** – The AHTD will review the invoice and supporting documentation upon receipt. Properly prepared and itemized invoices will be paid promptly upon verification. Any questioned cost may necessitate an explanation or additional documentation from the utility owner before payment can be made. Partial payment for the supported cost may be processed pending resolution of the questioned amount(s). Under no circumstances can accumulated payments or a single payment exceed the total amount of the Relocation or PE Agreement and any modifications or change orders.

14.2 PREPARATION AND PROCESSING OF FINAL INVOICES

Costs submitted for reimbursement must have actually been expended by the utility owner prior to including the expense on an invoice, unless the AHTD has previously given approval in writing for an alternate procedure. If expenses have been incurred but not paid, the expense should not be included on the invoice.

1) **Timing** – The utility owner must submit one original of the final invoice and an itemized statement of costs to the AHTD no later than one (1) year after completion of the relocation work.

2) **Method of Billing** – All final invoices must include:

a) AHTD job number

b) Project Location/Description

c) Utility owner work order number

d) Time period for the work included in the invoice

e) Name, telephone number and email address of a contact person

f) Signature of a utility owner representative and signature date

g) Summary comparison of actual project costs to the estimated costs for each category (construction, engineering, right of way, etc.) from beginning of work to date

h) Detail of costs incurred with comparison to original contract or approved change order quantities

i) Total previous payments

j) Recomputation of any reimbursable percentage in accordance with the Relocation Agreement

k) Copies of canceled checks or other documentation of payment to contractors or consultants for current claim

l) Supporting documentation for overhead and indirect expense rates

m) Explanation for any overruns of item quantities/amounts, additional items of work or changes in scope of work

n) As-built plans

3) **Certification** – Final bills, for other than lump sum agreements, shall contain a certification by an appropriate official of the utility owner (i.e. Controller, Chief Financial Officer, Accounting Department Manager, Facility Manager, Mayor, County Judge, etc.) that all items billed reflect actual expenditures by the utility owner for the relocation of its facilities. An acceptable form of certification follows:

> "This is to certify that the costs for labor, equipment, materials, supplies, contractor payments and other items included in this final bill reflect actual expenditures incurred by the utility owner for the relocation of its facilities under the Agreement for which the bill is submitted and that records to support all charges are on file in the utility owner's offices at *(insert utility owner's address)*."

The AHTD job number, job name, utility owner name, printed name of official, signature and date shall be shown on the certification form.

4) **Payment** – The AHTD will review the invoice and supporting documentation upon receipt. Properly prepared and itemized invoices will be paid promptly

upon verification. Any questioned cost will necessitate an explanation from the utility owner before payment can be made. Partial payment for the supported cost may be processed pending resolution of the questioned amount(s). Under no circumstances can accumulated payments or a single payment exceed the total amount of the Agreement and any modifications or change orders.

14.3 INVOICES FOR LUMP SUM AGREEMENTS

1) **Timing** – The utility owner shall submit one original of the final invoice in the exact amount of the agreed lump sum reimbursement to the AHTD no later than one (1) year after completion of the relocation work.

2) **Method of Billing** – All final invoices must include:

   a) AHTD job number

   b) Project Location/Description

   c) Utility owner work order number

   d) Time period for the work included in the invoice

   e) Name, telephone number and email address of a contact person

   f) Signature of a utility owner representative and signature date

   g) As-built plans

3) **Certification** – Final bills for lump sum agreements shall contain a certification by an appropriate official of the utility owner (i.e. Controller, Chief Financial Officer, Accounting Department Manager, Facility Manager, Mayor, County Judge, etc.) that the relocation work was done in accordance with the provisions of the approved agreement. An acceptable form of certification follows:

   "This is to certify that the relocation of (include utility owner's name) facilities required under the Lump Sum Agreement dated _____ was completed in accordance with the approved agreement."

4) The AHTD job number, job name, utility owner name, printed name of official, signature and date shall be shown on the certification form.

14.4 AUDIT BY THE AHTD

Invoices, time sheets, and other source documents supporting the utility owner's work performed under an agreement or contract with the AHTD will be subject to an audit by the AHTD to determine or validate the actual eligible cost of the relocation as provided for herein. Progress and Final Invoices are subject to audit.

- After the AHTD audit of the invoice, a notification will be sent to the utility owner advising of any adjustment needed.
- If the utility owner was overpaid, the owner shall reimburse the AHTD for the amount overpaid.
- After making final payment or receiving a refund from the utility owner in cases of overpayment, the AHTD will close the file.
- The utility owner shall maintain supporting records for a minimum of three (3) years from payment or completion of the job, whichever is greatest.

14.5 CHANGE ORDERS

Change orders must be prepared and approved in accordance with Sections 9.4 and 10.5 for applicable costs to be reimbursed.