



American Association of State Highway
and Transportation Officials

GUIDE FOR ACCOMMODATING UTILITIES

WITHIN HIGHWAYS AND FREEWAYS

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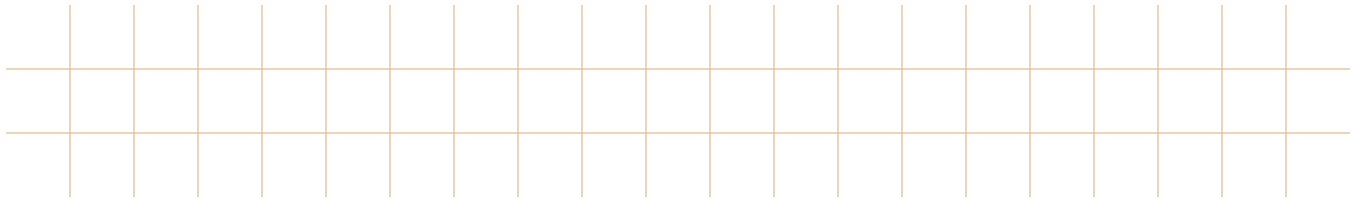


TABLE OF CONTENTS

1. Introduction.....	1
1.1. Background	1
1.2. Purpose	1
1.3. Scope	2
1.4. Applicability.....	2
1.4.1. Functional Classification of Roads	3
1.4.2. Level of Access Control.....	3
1.4.2.1. <i>Freeways (Fully Controlled Access)</i>	4
1.4.2.2. <i>Highways (Non-Controlled Access)</i>	4
1.4.2.3. <i>Multi-Access Highways (Partially Controlled Access)</i>	4
1.4.3. Differences in Utility Accommodation due to Functional Class	4
1.5. Other Relevant Documents	5
1.5.1. Federal Rules	5
1.5.2. Standards.....	5
1.5.3. Utility Accommodation Resources	6
 2. General Accommodation Factors	 7
2.1. Safety	7
2.1.1. Highway Safety	7
2.1.2. Design and Placement of Utilities	7
2.1.3. Protection.....	7
2.1.4. Encasements	8
2.1.5. Emergency Maintenance Operations	10
2.2. Permits and Agreements	10
2.2.1. Utility Permits.....	10
2.2.2. Utility Agreement	11
2.2.3. Utility Joint Use Agreement.....	12
2.3. Design.....	12
2.3.1. Responsibilities of the Utility Owner.....	12
2.3.2. Responsibilities of the Transportation Agency.....	12

- 2.3.3. 3D Design..... 12
- 2.3.4. Standards and Requirements 13
 - 2.3.4.1. Pipelines.....13
 - 2.3.4.2. Power and Communication Lines.....13
 - 2.3.4.3. Irrigation and Drainage Pipes.....14
- 2.4. Location 14
 - 2.4.1. Clear Zone 14
 - 2.4.2. Compatibility with Existing and Approved Future Utility Facilities 14
 - 2.4.3. Provisions for Expansion of Utilities 14
 - 2.4.4. Locating Existing Underground Utilities 15
- 2.5. Preservation and Restoration..... 15
 - 2.5.1. Erosion and Sediment Control..... 15
 - 2.5.2. Restoration 15
 - 2.5.3. Drainage..... 15
 - 2.5.4. Trees 15
 - 2.5.5. Maintenance 15
- 2.6. Construction Plans 15
- 2.7. As-Built Documentation..... 16
 - 2.7.1. Minimum Required Content..... 16
 - 2.7.2. Records 17
 - 2.7.3. Digital As-Builts..... 17
- 2.8. Aesthetics..... 17
 - 2.8.1. Visual and Environmental Impacts 17
 - 2.8.2. New Aerial Installations in Scenic Areas..... 17
- 2.9. Construction and Maintenance 18
 - 2.9.1. Responsibilities 18
 - 2.9.2. Notifications..... 18
 - 2.9.3. Relocations..... 18
 - 2.9.4. Utility Crossings 18
 - 2.9.4.1. Trenchless Construction.....19
 - 2.9.4.2. Trenched Construction19
 - 2.9.4.3. Utility Tunnels and Bridges..... 20
 - 2.9.5. Reimbursement of the Transportation Agency 21
 - 2.9.6. Vegetation and Site Cleanup..... 21
 - 2.9.7. Protection of Trees..... 21
 - 2.9.8. Settlements 21
 - 2.9.9. Traffic Control 21
 - 2.9.10. Utility Construction Included in Highway Contract 21

2.10. Change of Ownership or Function	22
2.10.1. Change of Ownership.....	22
2.10.2. Change of Function	22
2.11. Abandoned and Out of Service Facilities	22
2.11.1. Terms.....	22
2.11.2. Idling of Facilities.....	22
2.11.3. Abandonment in Place	22
2.11.4. Abandonment Costs and Restoration of Public Right-of-Way.....	23
2.11.5. Record Keeping of Abandoned Facilities	23
2.12. Alternative Uses of Right-of-Way	23
3. Utility Accommodation on Fully Controlled-Access Highways.....	25
3.1. Overview	25
3.2. Longitudinal Utility Installations	25
3.3. Existing Utilities along Proposed Freeways	26
3.4. Utility Crossings.....	26
3.4.1. Utilities along Roads or Streets Crossing Fully Controlled-Access Highways.....	26
3.4.2. Aboveground Utility Crossings	26
3.4.3. Underground Utility Crossings	27
3.4.4. Irrigation Ditches and Water Canals.....	27
3.5. Bridge Attachments.....	27
3.6. Vehicular Tunnels	28
3.7. Constructing and Servicing Utilities	28
4. Utility Accommodation on Highway Right-of-Way (NonControlled Access)	31
4.1. Overview	31
4.2. Underground Facilities	31
4.2.1. Location	31
4.2.2. Highway Structure Attachments.....	31
4.2.3. Depth of Cover.....	32
4.2.4. Separation.....	32
4.2.5. Appurtenances	32
4.2.6. Mechanical Protection.....	33
4.3. Aboveground Facilities	34
4.3.1. Location and Safety	34
4.3.2. Design.....	35
4.3.3. Vertical Clearances	36
4.4. Ditches and Canals	36

- 5. Utility Accommodation on Multi-Access Right-of-Way (Partially Controlled Access) . . . 37**
 - 5.1. Overview 37
 - 5.2. Longitudinal Utility Installations 37
 - 5.3. Existing Utilities along Proposed Highways 38
 - 5.4. Aboveground Facilities 38
 - 5.4.1. Location and Safety 38
 - 5.4.2. Crossings 39
 - 5.4.3. Vertical Clearances 39
 - 5.5. Underground Facilities 39
 - 5.5.1. Crossings 39
 - 5.5.2. Depth of Cover 40
 - 5.5.3. Separation 40
 - 5.6. Highway Structure Attachments 40
 - 5.7. Ditches and Canals 41

- 6. Glossary 43**

- 7. References 49**

- 8. Additional Resources 51**



1. INTRODUCTION

1.1. BACKGROUND

Transportation, communications, and utility networks are growing in complexity. Such networks include highways, railways, and waterways at the surface; subways, pipelines, conduits, and cables below the surface; communication lines and electric transmission lines above the surface; and wireless communication systems. Highways might include fully controlled-access highways such as freeways, partially controlled-access highways, and non-controlled-access highways. It is in the public interest for utility facilities to be accommodated on highway right-of-way when such use and occupancy do not adversely affect highway safety, construction, maintenance, use, function, or operations. In this respect, guidelines outlining safe and reasonable practices for accommodating utilities within highway right-of-way are valuable to transportation agencies. The guidelines herein are provided in the interest of developing and preserving safe highway operations and rights-of-way.

The possibility of many networks occupying a common right-of-way or intersecting increases as the networks grow. As a result, problems arise due to the construction, maintenance, and operations of one network affecting the others.

Each transportation agency has the responsibility to maintain highway right-of-way under its jurisdiction and to preserve the operational safety, integrity, use, and function of the highway facility. Since the manner in which utilities cross or otherwise occupy highway right-of-way can materially affect the safe operation, maintenance, and appearance of the highway, it is necessary that such use and occupancy be authorized and reasonably regulated. Transportation agencies have various degrees of authority to regulate the use of utilities within highway rights-of-way, generally through their authority to designate and control the use of right-of-way acquired for public highway purposes. Their authority depends on Federal laws and regulations, and state laws or regulations that differ between states.

Also, a state may have local, city, or county government laws and regulations differing from those applicable statewide. Aside from the necessary differences imposed by state and local laws, regulations, franchises, governmental/industry codes, climate, and geography, transportation agencies should employ reasonable uniformity in the engineering requirements to regulate the use of highway right-of-way by utilities.

1.2. PURPOSE

Uniform guidelines are needed to establish the conditions under which public and private utilities may be accommodated on the public right-of-way. The intent of this Guide is to establish procedures whereby the individual state transportation agencies may uniformly administer the accommodation of utilities on public highways. While this Guide has as its primary purpose improving and maintaining highway safety

and operation, and encouraging uniformity of utility treatment among the states, this Guide recognizes the public interest in avoiding unnecessary and costly operation and relocation of public utilities. This Guide does not intend to impose restrictions on the future installation of utility crossings that would obstruct the development of expanding areas adjacent to freeways.

This Guide provides information about the accommodation of utilities on highways, highlighting differences of applicable rules based on the degree of authority a transportation agency might have over the highway and emphasizing considerations for the efficient and beneficial accommodation of utilities in the public right-of-way. The goal is to minimize (a) possible interference and impairment to the highway and its structures, (b) adverse visual impacts, and (c) overall maintenance. Wherever appropriate, existing utility accommodation policies should be updated in light of these guidelines.

1.3. SCOPE

This Guide is provided for consideration and use by transportation agencies in regulating the use and occupancy by utilities of public right-of-way for freeways and highways. This Guide is limited to matters that are the responsibility of transportation agencies for preserving the safe operation, maintenance, construction, use, function, and integrity of the public right-of-way as a conduit for a transportation facility.

This Guide makes no reference to the legal right of utilities to use or occupy highway right-of-way or to the financial responsibility involved in the adjustment or installation of utilities on such right-of-way. Federal regulation and state law govern these matters. This Guide should be interpreted and applied to the extent consistent with state laws that give utilities the right to use or occupy highway right-of-way.

Where the laws or orders of public authority, industry, or governmental codes—or the transportation agencies—prescribe a higher degree of protection than provided by this Guide, the higher degree of protection should prevail.

This Guide recognizes that a distinction exists between buried fiber-optic cables and other utilities. This Guide supplements but does not alter the provisions of *Guidance on Sharing Freeway and Highway Rights-of-Way for Telecommunications* (AASHTO, 1996; see [Section 7](#)).

1.4. APPLICABILITY

This Guide applies to utilities, which may include entities owning a system for supplying water, gas, electric power, steam, or communications (e.g., cable television, cellular towers, and small cell facilities); a storm sewer, sanitary sewer, drainage tile, or other system for transmitting liquids; a pipeline system; or like service systems, and include their appurtenances. A utility might be privately, publicly, municipally, or cooperatively owned and includes entities that own traffic signal systems and street and intersection lighting systems. There are emerging technologies that might be defined as a utility under state law, for example, electric vehicle charging stations or certain alternative energy systems including photovoltaic electric systems. Ultimately, state law defines what systems are included in the definition of utility.

These utilities are located, adjusted, or relocated within the public right-of-way of transportation facilities under the jurisdiction of transportation agencies. Such utilities may involve the construction and maintenance of underground, surface, or aboveground facilities, either singularly or in combination. These transportation facilities have specific functional classifications that correspond to the level of access to the

roadway, also called access control. Access control governs the transportation agency's ability to accommodate utilities since the utility accommodation standards vary depending on the transportation facility's functional classification as a freeway (fully controlled access), highway (non-fully controlled access), or other roads (free access).