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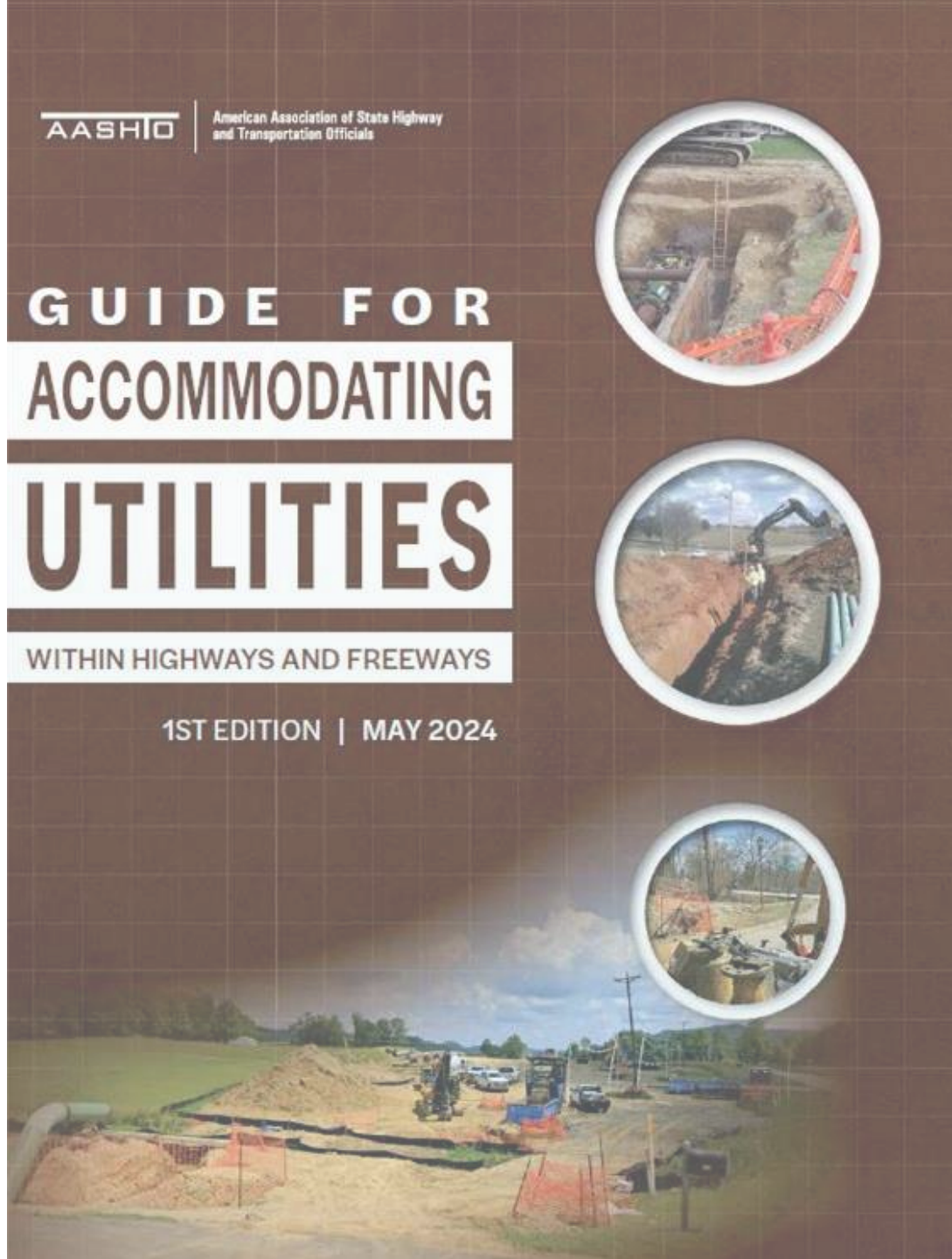


Guide Link:



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# Outline

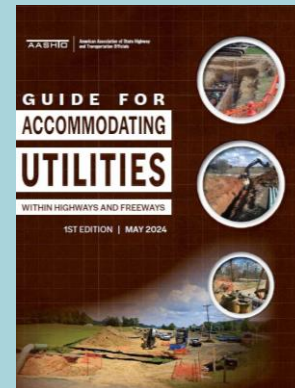


- What is this Guidance?
- Where did it originate?
- What does it contain?
- How can it help KYTC?

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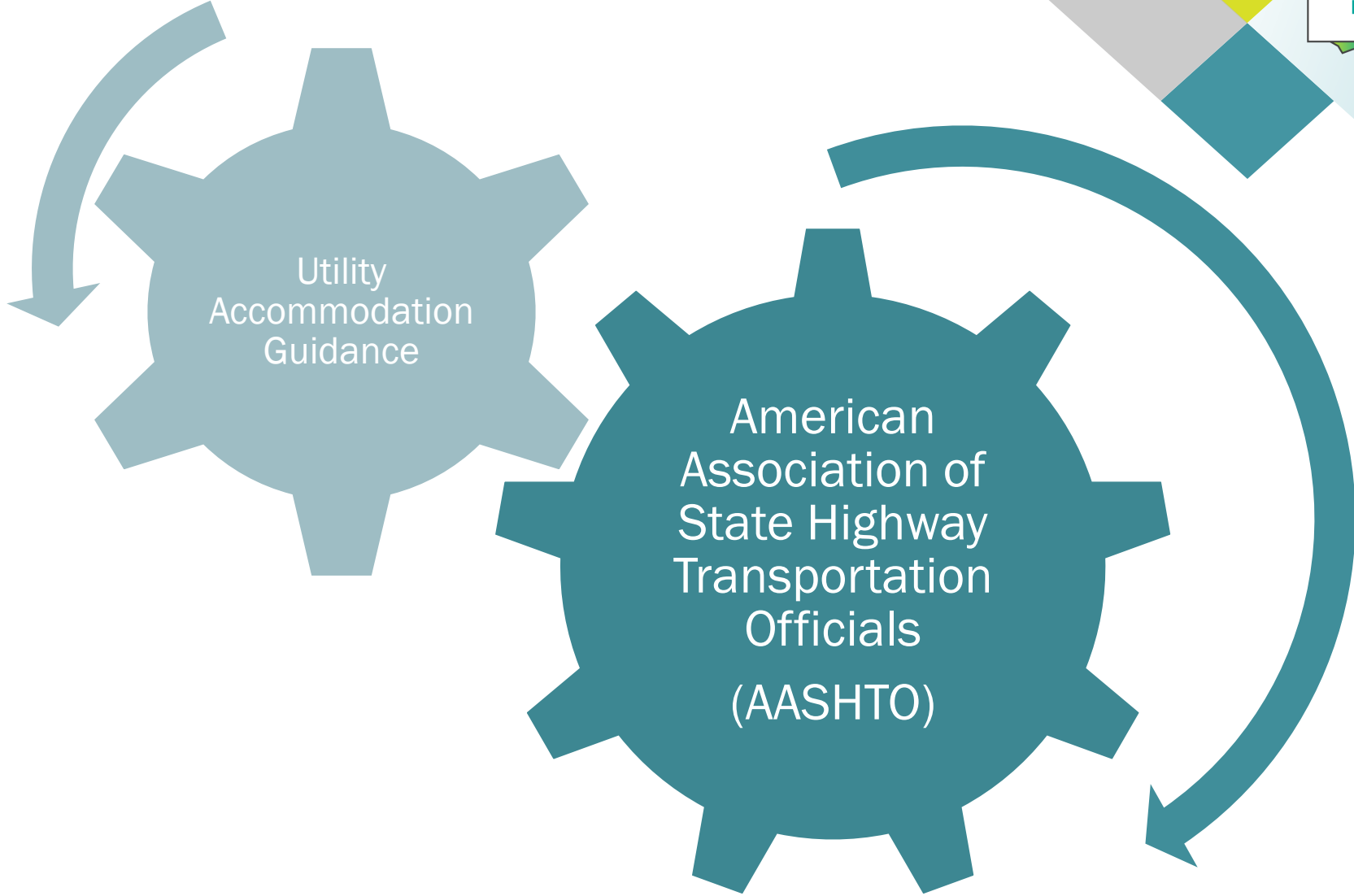


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# What is the guidance? Where did it originate?



# AASHTO



- American Association of State Highway Transportation Officials
- Nonprofit, nonpartisan association representing highway and transportation departments

# Goals



- Foster development, operation, and maintenance of an integrated national transportation system.
- Educate about the role that transportation plays in securing a good quality of life and sound economy.
- Liaison btwn state DOT & Federal government.
- International leader in setting technical standards.
- Standards issued for many technical areas.
- Catalyst for excellence by offering:
  - Smart solutions and promising practices;
  - Critical information, training and data;
  - Direct technical assistance to states; and
  - Unchallenged expertise.



# Original Documents



A Policy on the

Accommodation  
of Utilities Within  
Freeway  
Right-of-Way

October 2005



A Guide for

Accommodating  
Utilities Within  
Highway  
Right-of-Way

October 2005

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# Goals

2019 by the  
AASHTO Utilities  
Technical  
Subcommittee

Update content  
and add new  
technologies

Consider  
renewable energy  
and broadband  
(2021 FHWA  
Guidance Memo)

2021 turned over  
to the NCHRP

## Update

*Accommodation  
of Utilities  
Within Freeway  
Right-of-Way  
Policy*

9 Pages

Technical  
Committee on  
Geometric Design

*Accommodating  
Utilities Within  
Highway Right-  
of-Way Guide*

20 Pages

Highway  
Committee on  
Design

## Unify

*A Guide for  
Accommodating  
Utilities Within  
Highways and  
Freeways*

51 Pages

Committee on  
Right of Way  
Utilities and  
Outdoor  
Advertising  
Controls

## Deliver



# Updates

- Broadly discuss  
**Renewables**  
**Broadband/Small Cell**  
**EV Charging**  
Note CFR and USC
- **Defer to state:**
  - Consideration as a Utility
  - Rules, laws, and regulations
- Alternative uses of ROW (treatment as utility vs ROW)
  - 2021 FHWA CEC Guidance Memo



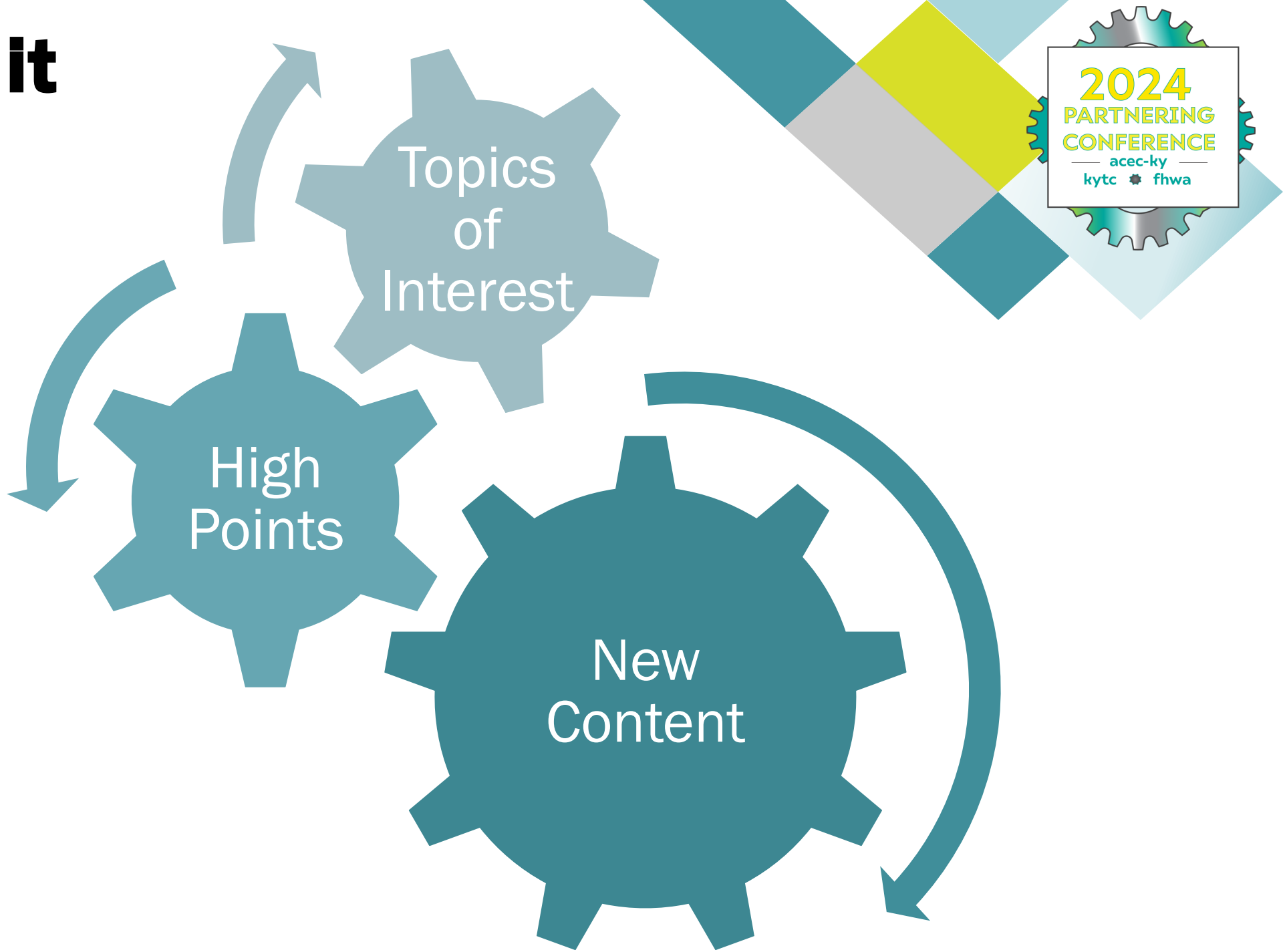
# Unify

- **2005 documents**
    - A Policy on the Accommodation of Utilities Within Freeway Right-of-Way
    - A Guide for Accommodating Utilities Within Highway Right-of-Way
  - **Include additional resources**
  - **Add pertinent data for users including:**
    - Ch. 6 References
    - Ch. 7 Additional Resources
- Sources: CFR, USC, AASHTO, API, APWA, ASCE, FHWA, IEEE, TRB, State DOTs





# What does it contain?



# Contents

- **Introduction**
- **General Accommodation Factors**
- **Utility Accommodation on Fully Controlled-Access Highways**
- **Utility Accommodation on Highway Right-of-Way (Non-Controlled Access)**
- **Utility Accommodation on Multi-Access Right-of-Way (Partially Controlled Access)**



# Chapter 1: Introduction

Background

Purpose

Scope

Applicability

1. **Functional Classification of Roads**
2. **Level of Access Control**
  1. *Freeways (Fully Controlled Access)*
  2. *Highways (Non-Controlled Access)*
  3. *Multi-Access Highways (Partially Controlled Access)*
3. **Differences in Utility Accommodation due to Functional Class**

Other Relevant Documents

1. Federal Rules
2. Standards
3. Resources



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Note: Includes excerpts from guide

# Ideas of Interest

## 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.

## 1.4.2. Level of Access Control

- The functional classification defines the role that the road plays in serving traffic flow, limiting the level of access that vehicles and permitted facilities, including utilities, have to occupy the facility...
- Utility occupancy is also limited due to the progressive need to promote through movement mobility through the corridor and limit hazards.

## 1.4.3. Differences in Utility Accommodation due to Functional Class

- Rules for the accommodation of utilities differ based on the functional class of the roadway. Interstates, freeways, and expressways have fully controlled access and are designed specifically for through movement mobility.



# Chapter 2: General Accommodation



## Safety

1. Highway Safety
2. Design and Placement of Utilities
3. Protection
4. **Encasements**
5. Emergency Maintenance Operations

## Permits and Agreements

1. **Utility Permits**
2. **Utility Agreement**
3. Utility Joint Use Agreement

Note: Includes excerpts from guide

# Chapter 2: General Accommodation – Design Module



Responsibilities of the Utility Owner

Responsibilities of the Transportation Agency

3D Design

Standards and Requirements

1. Pipelines
2. Power and Communication Lines
3. *Irrigation and Drainage Pipes*

Location

1. Clear Zone
2. Compatibility with Existing and Approved Future Utility Facilities
3. Provisions for Expansion of Utilities
4. Locating Existing Underground Utilities

Note: Includes excerpts from guide



# Chapter 2: General Accommodation – Design Module



## Preservation and Restoration

1. Erosion and Sediment Control
2. Restoration
3. Drainage
4. Trees
5. Maintenance

## Construction Plans

## As-Built Documentation

1. Minimum Required Content
2. Records
3. Digital As-Builts

## Aesthetics

1. Visual and Environmental Impacts
2. New Aerial Installations in Scenic Areas

Note: Includes excerpts from guide

# Chapter 2: General Accommodation – Design Module

## Construction and Maintenance

1. Responsibilities
2. Notifications
3. Relocations
4. Utility Crossings
  1. *Trenchless Construction*
  2. *Trenched Construction*
  3. *Utility Tunnels and Bridges*
5. **Reimbursement of the Transportation Agency**
6. Vegetation and Site Cleanup
7. Protection of Trees
8. Settlements
9. Traffic Control
10. Utility Construction Included in Highway Contract



Note: Includes excerpts from guide

# Chapter 2: General Accommodation – Design Module



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## Change of Ownership or Function

1. Change of Ownership
2. Change of Function

## Abandoned and Out of Service Facilities

1. Terms
2. Idling of Facilities
3. Abandonment in Place
4. Abandonment Costs and Restoration of Public ROW
5. Record Keeping of Abandoned Facilities

## Alternative Uses of Right-of-Way

Note: Includes excerpts from guide

# Ideas of Interest

## 3D Design

- Aim to **support emerging digital project design** standards and delivery practices, including three-dimensional (3D) design and modeling.
- Improved decision making during the project design process...lead to fewer unnecessary utility relocations.

## Standards and Requirements

1. *Pipelines includes petroleum, pressurized lines, water lines, vents, and shut off valves*
2. *Power and Communication Lines includes cited standards*

## Locating Existing Underground Utilities

- Underground utilities should be detected and mapped using the **American Society of Civil Engineers (ASCE) Standard Guideline for Investigating and Documenting Existing Utilities**



# Ideas of Interest

## AS-BUILT DOCUMENTATION

### Records

- Describe the **facility, usage, size, configuration, material, location, and vertical clearance** (or depth of cover) ...any special features

### Digital As-Builts

- Should **support emerging digital project delivery** standards and practices.

## CONSTRUCTION AND MAINTENANCE

### Reimbursement of the Transportation Agency

- Utility installations that **violate or infringe on state and Federal utility accommodation rules could result in charges** against the utility.
- Transportation agency utility accommodation rules should specify methods, process, and potential penalties to remedy these situations. These remedies could include the **deduction of charges from outstanding accounts** from relocation agreements with the utility or the **withholding of future utility permits**.



# Ideas of Interest

## CHANGE OF OWNERSHIP OR FUNCTION

### Change of Ownership

- Utility should **notify the transportation agency** within a reasonable period of time when ownership changes.

## ABANDONED AND OUT OF SERVICE FACILITIES

- A utility facility no longer in use **can have major impacts** during maintenance and construction activities of a transportation agency.

### Abandonment in Place

- If a permanently out of service utility facility is to be left in place in lieu of removal, the **owner should submit a written request** to the transportation agency





# Ideas of Interest

## ALTERNATIVE USES OF RIGHT-OF-WAY

- Uses may include **renewable energy generation, electrical transmission and distribution projects, broadband projects, vegetation management, inductive charging in travel lanes, alternative fueling facilities,** and other appropriate uses.
- Accommodation **guided by state rules,** while alternative uses on Federal-aid right-of-way must **also adhere to Federal rules.**



# Chapter 3: UAP on Fully Controlled Access Highways

Overview

Longitudinal Utility Installations

Existing Utilities along Proposed Freeways

Utility Crossings

1. Utilities along Roads or Streets Crossing Fully Controlled-Access Highways
2. Aboveground Utility Crossings
3. Underground Utility Crossings
4. Irrigation Ditches and Water Canals

Bridge Attachments

Vehicular Tunnels

Constructing and Servicing Utilities



Note: Includes excerpts from guide

# Ideas of Interest

## LONGITUDINAL UTILITY INSTALLATIONS

- Should generally not be permitted longitudinally

## BRIDGE ATTACHMENTS

- Serviceable while preserving the **safety, operations, maintenance, aesthetics, and the integrity** of the structure.

## CONSTRUCTING AND SERVICING UTILITIES

- Should be located and designed in such a manner that they can be **constructed and/or serviced without direct access from the through-traffic or connecting ramp roadways.**



# Chapter 4: UAP on Hwy ROW (Non-Controlled Access)



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## Overview

## Underground Facilities

1. Location
2. Highway Structure Attachments
3. Depth of Cover
4. Separation
5. Appurtenances
6. Mechanical Protection

## Aboveground Facilities

1. Location and Safety
2. Design
3. Vertical Clearances

## Ditches and Canals

Note: Includes excerpts from  
guide

# Ideas of Interest

## UNDERGROUND FACILITIES

### Location

- Should be avoided in **deep cuts**; near **footings of bridges and retaining walls**; at highway **cross drains**

## Highway Structure Attachments

- Attachments to bridge structures should be **avoided** where it is feasible and reasonable
- Acceptable utility installations are those that will occupy a position **beneath the structure's deck, between the outer girders or beams**

## ABOVEGROUND FACILITIES

### Location and Safety

- Should be located outside the **clear zone** and as near as practical to the **right-of-way line**.



# Chapter 5: UAP on Multi-Access ROW (Partial Control)



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Overview

Longitudinal Utility Installations

Existing Utilities along Proposed Highways

Aboveground Facilities

1. Location and Safety
2. Crossings
3. Vertical Clearances

Underground Facilities

1. Crossings
2. Depth of Cover
3. Separation

Highway Structure Attachments

Ditches and Canals

Note: Includes excerpts from guide



# 9 new sections added:



Section 1.4.1.

- Functional Classification of Roads

Section 2.2.1.

- Utility Permits

Section 2.2.2.

- Utility Agreement

Section 2.2.3.

- Utility Joint Use Agreement

Section 2.3.3.

- 3D Design

Section 2.7.

- As-Built Documentation

Section 2.9.10.

- Utility Construction Included in Highway Contract

Section 2.11.

- Abandoned and Out of Service Facilities

Section 2.12.

- Alternative Uses of Right-of-Way

Section 7

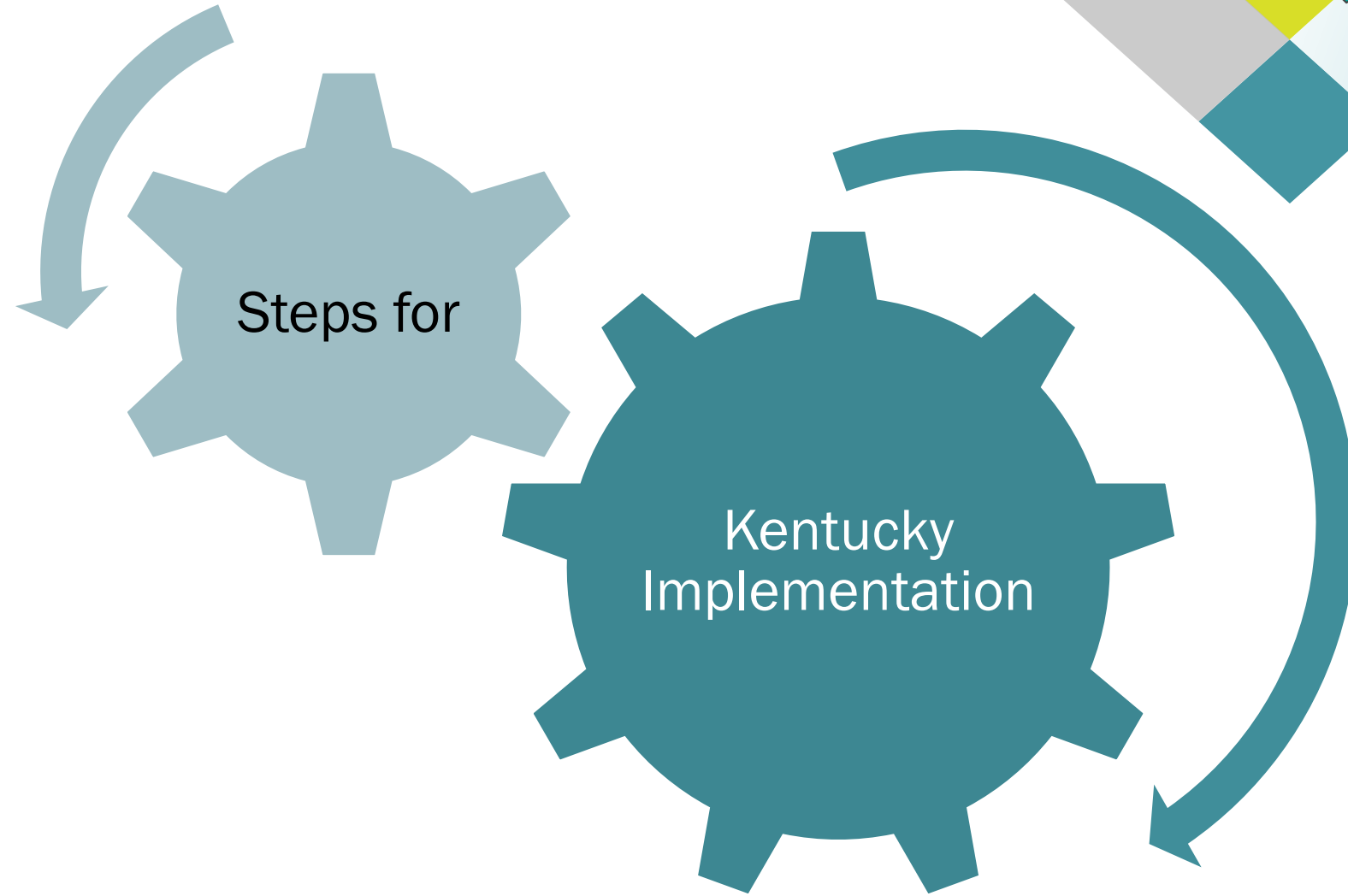
- **References**

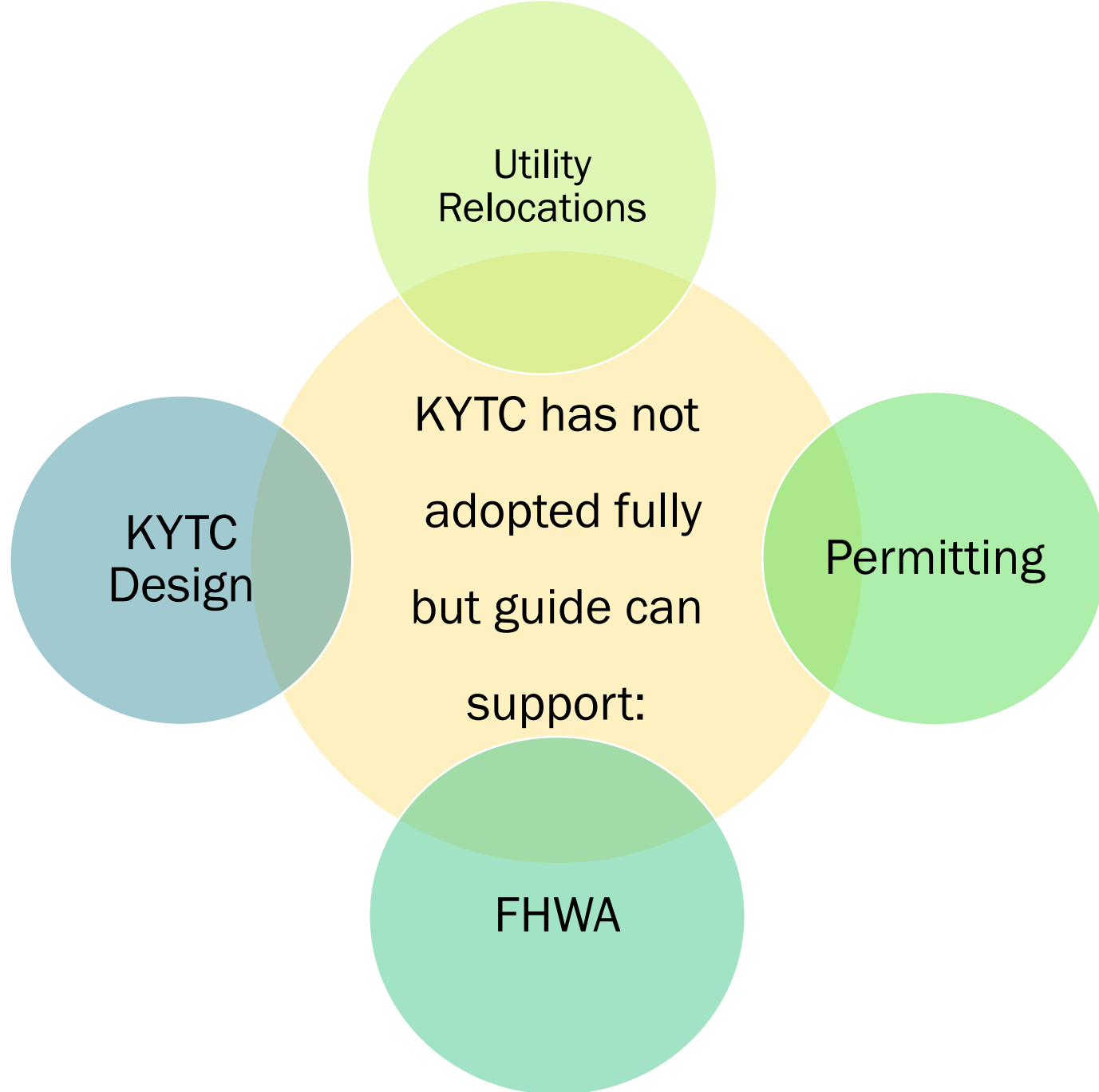
Section 8

- **Additional Resources**

Note: Includes excerpts from guide

# How can it help KYTC?





# KYTC Design

Help direct  
efficient designs

## FHWA

A helpful national  
guide

## Utility Relocations

An additional  
resource for utility  
relocation  
designs

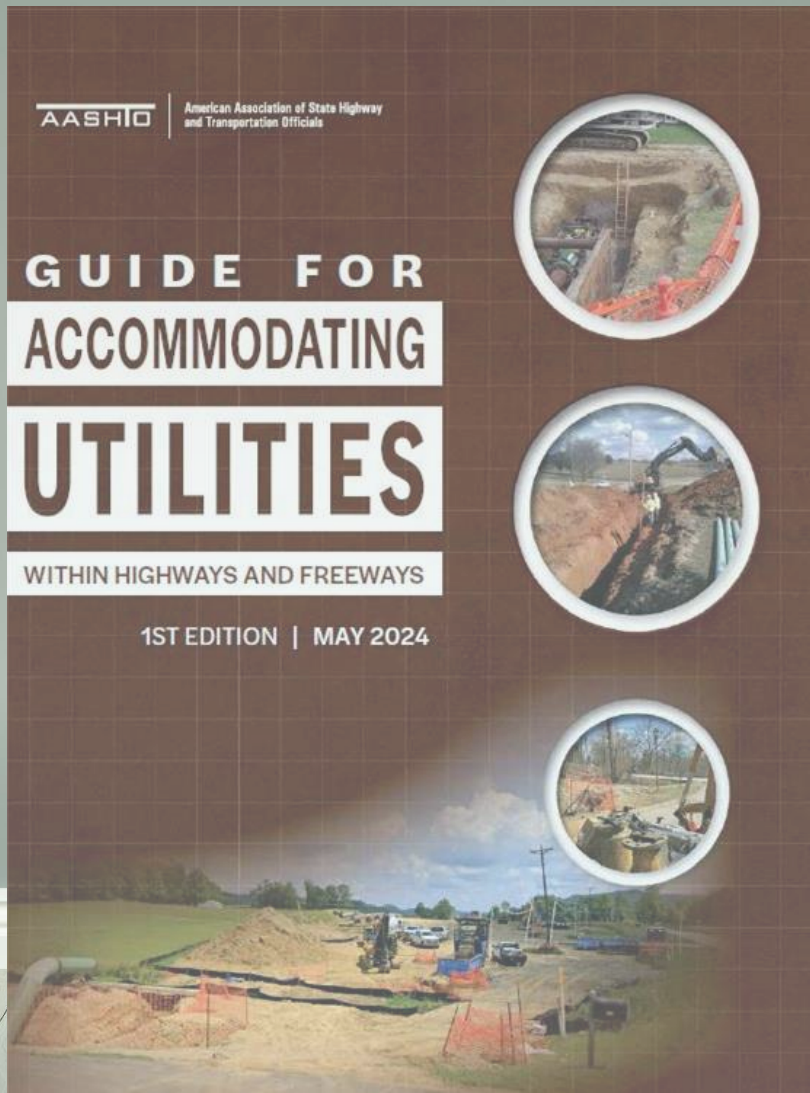
Provided the  
guidance is not in  
conflict with KY  
UAP

## Permitting

A resource for  
utility permit  
application review

A resource for  
valuable changes  
to KY UAP





AASHTO GUIDE

