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TRB Webinar: Accommodating Utilities in Highway and Freeway Right- of-Way

November 6, 2023

12:00 – 1:30 PM



PDH Certification Information

1.5 Professional Development Hours (PDH) – see follow-up email

You must attend the entire webinar.

Questions? Contact Andie Pitchford at TRBwebinar@nas.edu

The Transportation Research Board has met the standards and requirements of the Registered Continuing Education Program. Credit earned on completion of this program will be reported to RCEP at RCEP.net. A certificate of completion will be issued to each participant. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the RCEP.



Purpose Statement

This webinar will provide background on the laws and regulations that led to the development of the original documents and a summary of the recent NCHRP project that led to the development of the new guide. Presenters will conclude with an outlook on the AASHTO publication process and the expected publication timeline.

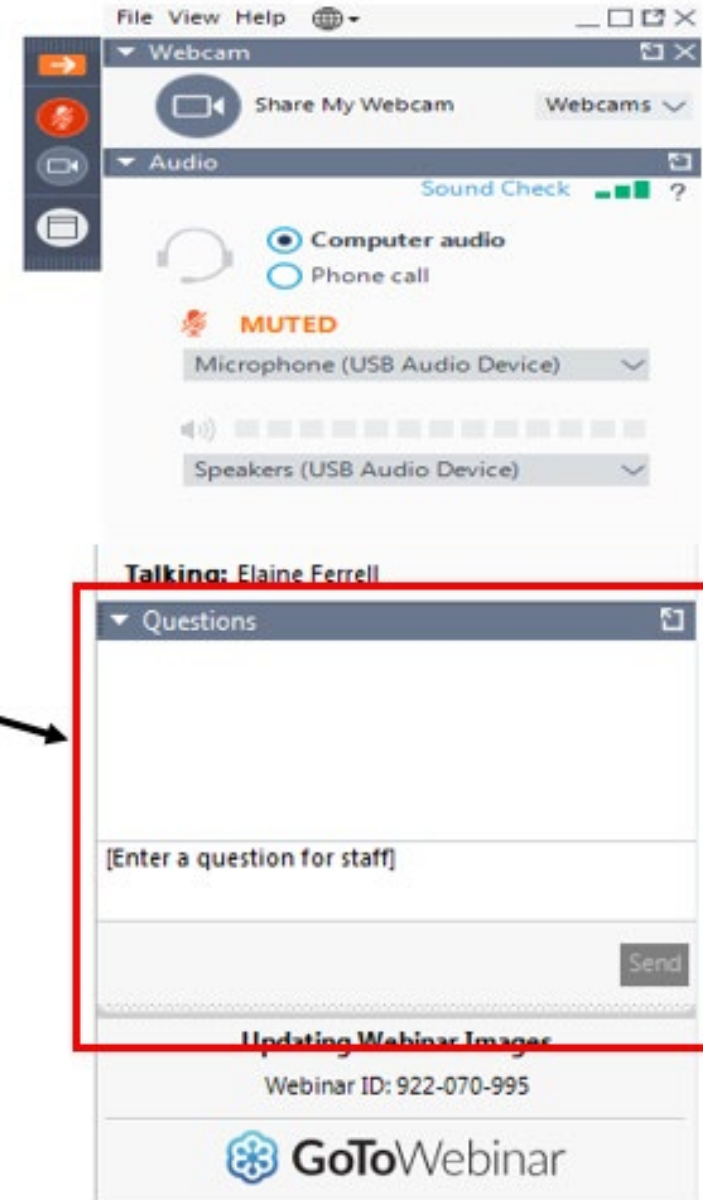
Learning Objectives

At the end of this webinar, you will be able to:

- Identify laws and regulations that led to the development of the AASHTO utility accommodation guide and policy
- Review the objectives and process to develop the AASHTO utility accommodation guide
- Assess changes and updates to the new AASHTO utility accommodation guide compared to previous versions

Questions and Answers

- Please type your questions into your webinar control panel
- We will read your questions out loud, and answer as many as time allows



Today's presenters



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A New AASHTO Guide for Accommodating Utilities in Highway & Freeway Right-of-Way

TRB Webinar

November 6, 2023

Moderator and Panelists



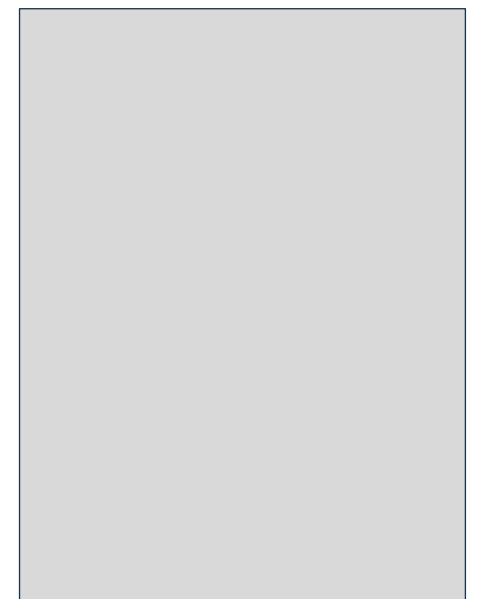
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Webinar Objectives

- Provide background of AASHTO documents for accommodating utilities in federal and state right-of-way
- Summarize efforts and methodology to develop the new guide
- Present overview of new AASHTO guide
- Provide update on AASHTO guide publication process

Background and Context

Laws and Regulations

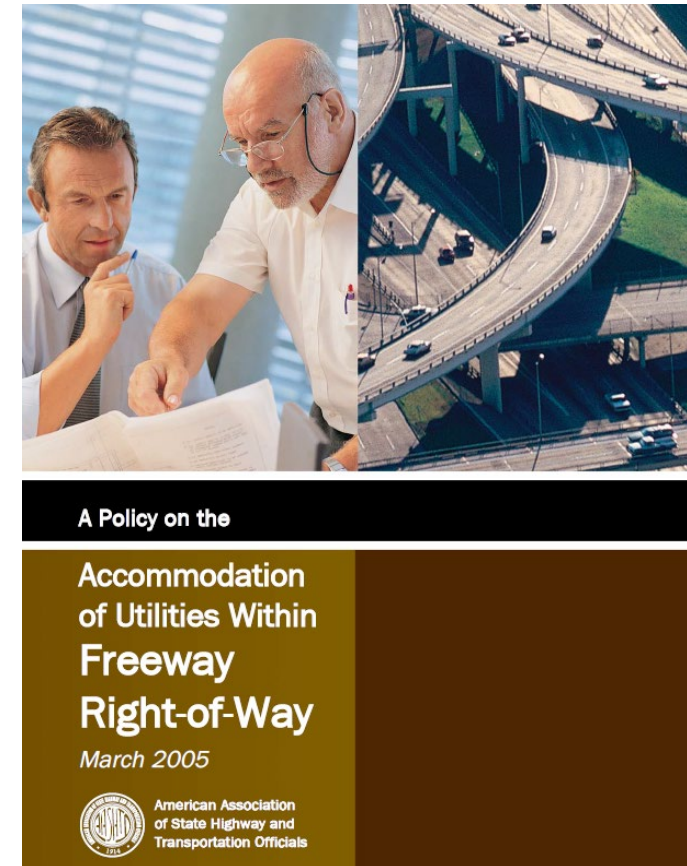
- 1916: Federal-Aid Road Act (Federal-Aid Highway Act)
 - Construction of rural post roads (surveys and ROW acquisition not eligible)
 - Administrative interpretation added utility relocations to definition of construction
- 1944: Federal-Aid Highway Act:
 - Established a National System of Interstate Highways
 - Substantially increased the amount of federal-aid funds
 - Federal contribution 50% of construction cost (ROW costs up to 1/3 of construction)
 - Modified definition of construction to include mapping, surveying, and ROW costs

Laws and Regulations

- 1956: Federal-Aid Highway Act
 - Utility relocations reimbursable on federal-aid primary/secondary and interstate systems
 - Same proportion as for other construction costs (if payments did not violate state law)
- 1957: Policy and Procedure Memorandum 30-4 (PPM 30-4)
 - Superseded 1946 General Administrative Memorandum No. 300
- 1974: FHWA's Federal-Aid Highway Program Manual incorporated PPM 30-4
 - Referenced AASHTO Policy as standard for utility accommodation
- 1985: 23 CFR 645.211 "State transportation department accommodation policies"

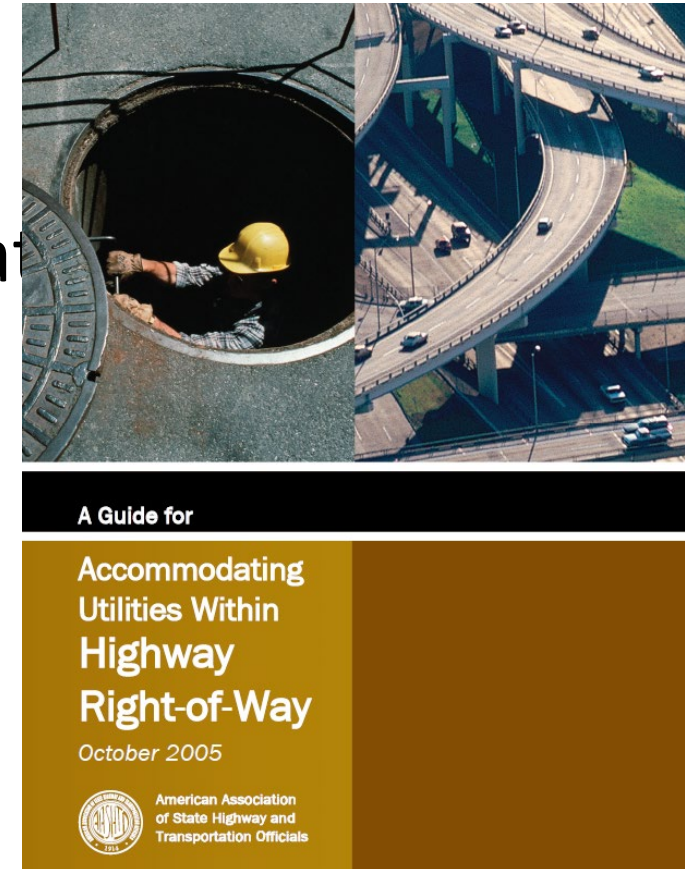
Policy for Utility Accommodation on Freeways

- March 2005, 10 pages
- Longitudinal installations not allowed
 - Certain exceptions
- Crossings are allowed
- Manner of installation and adjustments:
 - In accordance with Guide
- Shared resource projects: Separate policy



Guide for Utility Accommodation on Highways

- October 2005, 20 pages
- Considerations for location, safety, design, local preservation, and visual quality
- Underground facilities
- Overhead facilities
- Ditches and canals



Policy Updates

Policy Update	Organization	Highlights
1959 Policy on the Accommodation of Utilities on the National System of Interstate and Defense Highways, 1 st Ed.	AASHO	<ul style="list-style-type: none"> • Longitudinal utilities on freeways strongly discouraged • Crossing allowed • Design standard for Interstate projects (23 CFR 625.3)
1969 Policy on the Accommodation of Utilities on Freeway Rights-of-Way, 2 nd Ed.	AASHO	<ul style="list-style-type: none"> • Extended applicability to all federal-aid freeways • Referenced Guide for utility installations and adjustment details • No longer design standard
1982 Policy on the Accommodation of Utilities on Freeway Rights-of-Way, 3 rd Ed.	AASHTO	<ul style="list-style-type: none"> • Utility accommodation on freeways limited to extreme case exceptions, clarifications
1989 Policy on the Accommodation of Utilities within Freeway Right-of-Way, 4 th Ed.	AASHTO	<ul style="list-style-type: none"> • State adherence to policy no longer required
2005 Policy on the Accommodation of Utilities within Freeway Right-Of-Way, 5 th Ed.	AASHTO	<ul style="list-style-type: none"> • Policy did not apply to public-private partnerships or shared use of telecommunications

Guide Updates

Policy Update	Organization	Highlights
1969 Guide for Accommodating Utilities within Highway Rights-of-Way, 1 st Ed.	AASHO	<ul style="list-style-type: none"> Location, design, and methods for installing, adjusting, accommodating, and maintaining utilities within highway ROW
1981 Guide for Accommodating Utilities within Highway Right-of-Way, 2 nd Ed.	AASHTO	<ul style="list-style-type: none"> Corresponded to Policy update
1994 Guide for Accommodating Utilities within Highway Rights-of-Way, 3 rd Ed.	AASHTO	<ul style="list-style-type: none"> Need for reasonable uniformity in engineering requirements for regulating the use of the ROW by utilities Differences in state and local utility accommodation regulations
2005 Guide for Accommodating Utilities within Highway Right-of-Way, 4 th Ed.	AASHTO	<ul style="list-style-type: none"> Updated references to standards, including AASHTO Telecommunications Shared Resources Guide and ASCE 38-02

Use of Guide by FHWA

- 23 CFR 645.211: Provision for FHWA to use Guide to evaluate adequacy of state utility accommodation policies
- Prior to 2001, FHWA:
 - **Shall** use 1981 AASHTO Guide for Accommodating Utilities Within Highway Right-of-Way
 - **Should** use 1989 AASHTO Roadside Design Guide
- Starting in 2001, FHWA:
 - **Should** use current edition of AASHTO Guide for Accommodating Utilities Within Highway Right-of-Way
 - **Should** use current edition of AASHTO Roadside Design Guide

State Utility Accommodation Rules

- Common to use AASHTO Policy and Guide as model for state utility accommodation policies
- State utility accommodation policies vary greatly
 - Rules in administrative codes
 - State DOT manuals
- Topics not covered by AASHTO Policy and Guide
 - Utility accommodation in urban areas
 - Differences in state and local laws and regulations

Development of the New Guide

NCHRP 20-123(06)

- National Cooperative Highway Research Program
- Merging and Updating AASHTO Policy on the Accommodation of Utilities within Freeway Right-of-Way and AASHTO Guide for Accommodating Utilities within Highway Right-of-Way

Project Objectives

- Merge
AASHTO Policy on the Accommodation of Utilities within Freeway Right-of-Way and
AASHTO Guide for Accommodating Utilities within Highway Right-of-Way into
(Draft) AASHTO Guide for Accommodating Utilities within Highways and Freeways
- Update material with emphasis on
 - Material that changed or developed following release of previous edition
 - Emerging technologies for installing and accommodating utilities in right-of-way

What We Did

- Reviewed literature and developed prioritized list of manual updates
- Conducted peer exchanges
 - Online peer-exchange
 - TRB stakeholder meeting
- Prepared draft AASHTO guide
- Prepared research report

Peer Exchange

- Virtual, November 18 and 19, 2021
- Participation from 70 stakeholders (DOTs, utilities, consultants, others)
- Reviewed draft new guide's structure
- Discussed guide structure and sections in breakouts
- Updated draft new guide based on comments

Peer Exchange Stakeholder Comments

- Proposed structure adequate
- Provide guidance on utility accommodation, help develop understanding of challenges and responsibilities
- Use consistent terminology
- Discussion about new sections
 - Conditions of accommodations
 - Compensation terms
 - Emerging technologies
 - Requirements for relocations

TRB Workshop

- In person, January 13, 2022
- About 30 stakeholders
- Focus on items not resolved at peer-exchange
- Reviewed draft new guide's structure
- Discussed guide structure and sections in breakouts

TRB Workshop Stakeholder Comments

- Content changes or additions
 - Guidelines for transition from paper to digital
 - 3D design process improvements
 - Design for utility access on interstates
 - Improvements to utility data collection
- Recommendations for future additions to the guide
 - Guidance on digital as-builts
 - Guidelines for risk analysis and legal implications of new standards
 - Normalizing risk during project development
 - Utility inventory databases

Overview of Draft AASHTO Guide

AASHTO Guide for Accommodating Utilities within Highways and Freeways

Changes in Draft AASHTO Guide

- Changed tone of document to guideline
- Merged similar content from policy and guide
- Removed small inconsistencies between policy and guide
- Created new chapter on general utility accommodation considerations
 - Applies to utilities regardless of roadway functional classification
- Created new chapter for accommodation on partially controlled access
- 26 pages to 54 pages total

Changes in Draft AASHTO Guide: New Sections

- Functional classification of roads
- Utility permits
- Utility agreements
- Utility joint use agreements
- 3D design
- As-built documentation
- Utility construction included in highway contract
- Abandonment and out of service facilities
- Alternative uses of highway right-of-way

Structure of Draft AASHTO Guide

- 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)
- Appendices

Structure of Draft AASHTO Guide

- Introduction
 - 1.1 Background
 - 1.2 Purpose
 - 1.3 Scope
 - 1.4 Applicability
 - 1.5 Other Relevant Documents

Structure of Draft AASHTO Guide

- General Accommodation Factors
 - Safety
 - Permits and Agreements
 - Design
 - Location
 - Preservation and Restoration
 - Construction Plans
 - As-Built Documentation
 - Aesthetics
 - Construction and Maintenance
 - Change of Ownership or Function
 - Abandonment and Out of Service Facilities
 - Alternative Uses of Right-of-Way

Structure of Draft AASHTO Guide

- Utility Accommodation on Fully Controlled Access Highways
 - Overview
 - Longitudinal Utility Installations
 - Existing Utilities along Proposed Freeways
 - Utility Crossings
 - Bridge Attachments
 - Vehicular Tunnels
 - Constructing and Servicing Utilities

Structure of Draft AASHTO Guide

- Utility Accommodation on Highway Right of Way (Non-Controlled Access)
 - Overview
 - Underground Facilities
 - Aboveground Facilities
 - Ditches and canals

Structure of Draft AASHTO Guide

- Utility Accommodation on Multi-Access Right of Way (Partially Controlled Access)
 - Overview
 - Longitudinal Utility Installations
 - Existing Utilities along Proposed Highways
 - Aboveground Facilities
 - Underground Facilities
 - Highway Structure Attachments
 - Ditches and Canals

Structure of Draft AASHTO Guide

- Appendices
 - Glossary
 - References
 - Additional Resources

Draft AASHTO Guide: Next Steps

- Provide guidance for utility accommodation for the next few decades
- Provide a framework that can be expanded as need arises
- Research report
 - Development of a Guide for Accommodating Utilities within Highways and Freeways (NCHRP Web-Only Document 356)
- AASHTO publication

NCHRP Project Panel Members

Name	Role	Organization
David Jared	CRP Staff	TRB
Nelson Smith	Chair	Maryland DOT
Patrick Allen	Member	Georgia DOT
Victoria Bever	Member	Arizona DOT
Gregory Faber	Member	Texas DOT
Charles Ferguson	Member	Delaware DOT
Jennifer McCleve	Member	Kentucky Transportation Cabinet
Natalie Parks	Member	USI Consultants
Wendi Snyder	Member	Ohio DOT
Roy Sturgill	Member	Iowa State University
Abby Williamson	Member	Wisconsin DOT
Julie Johnston	FHWA Liaison	FHWA
Casey Soneira	AASHTO Liaison	AASHTO

TTI Team Members

Name	Role	Organization
Edgar Kraus	PI	Texas A&M Transportation Institute
Kris Harbin	Co-PI	Texas A&M Transportation Institute
Cesar Quiroga	Subject Matter Expert	Texas A&M Transportation Institute

Publication of the AASHTO Guide

AASHTO Guide for Accommodating Utilities within Highways and Freeways

Q&A

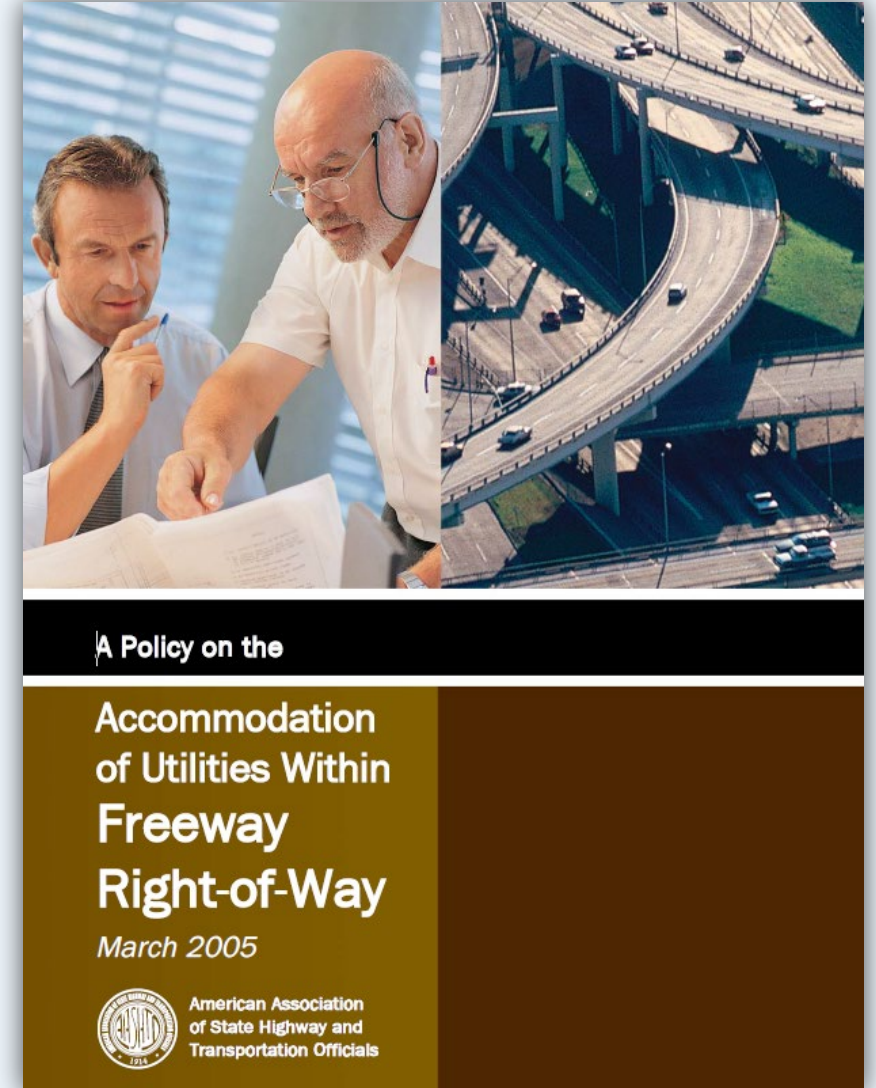
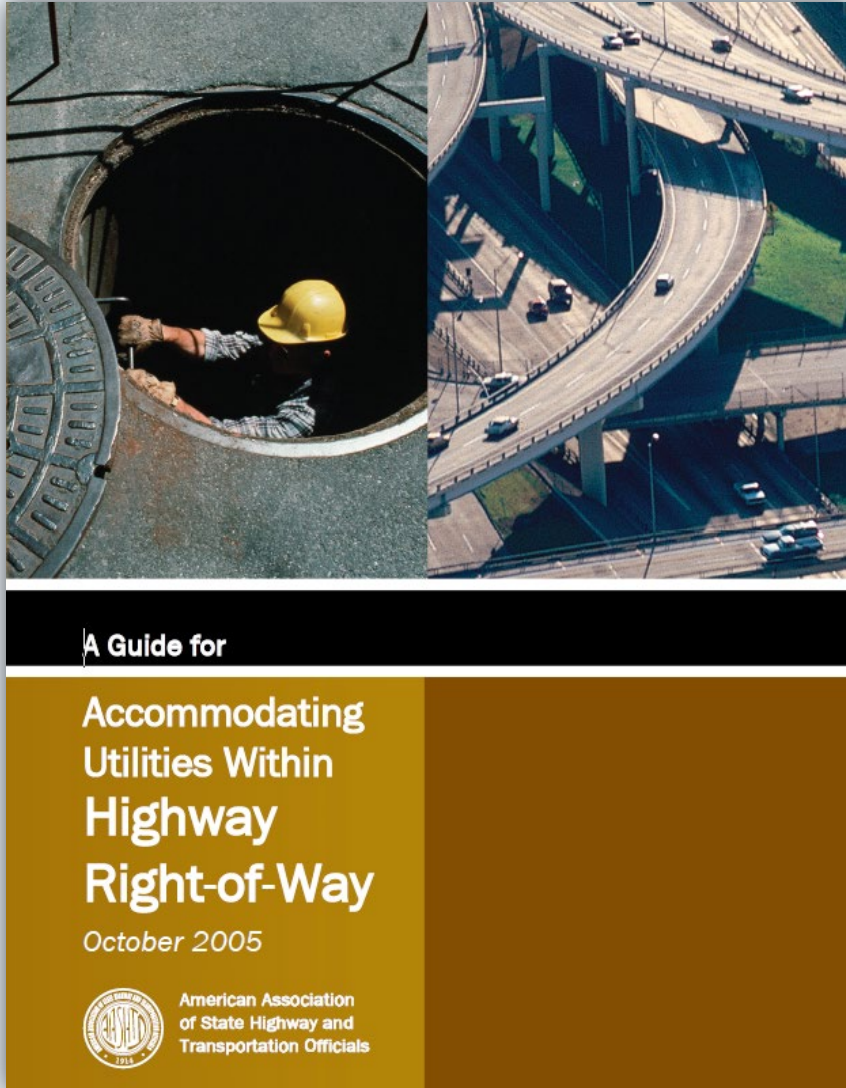
AASHTO Update

Guide for Accommodating Utilities within Highways and Freeways (GAUHF-1)

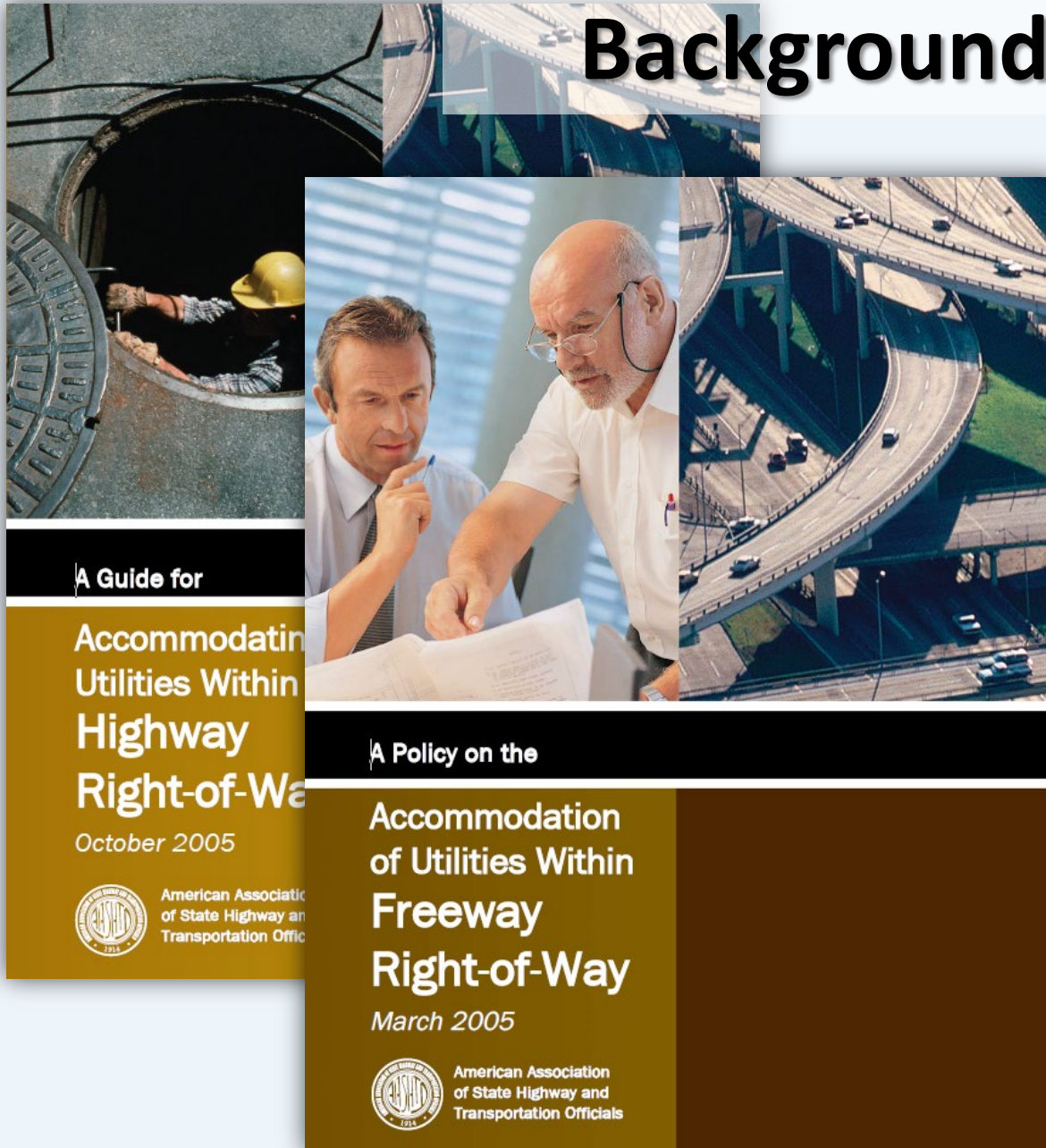
Background of GAUHF-1

Committee on
Design

Technical
Subcommittee on
Geometric Design



Background of GAUHF-1



2017 Committee on ROW, Utilities,
and Outdoor Advertising Controls



Technical Subcommittee on
Utilities



Internal Committee Project

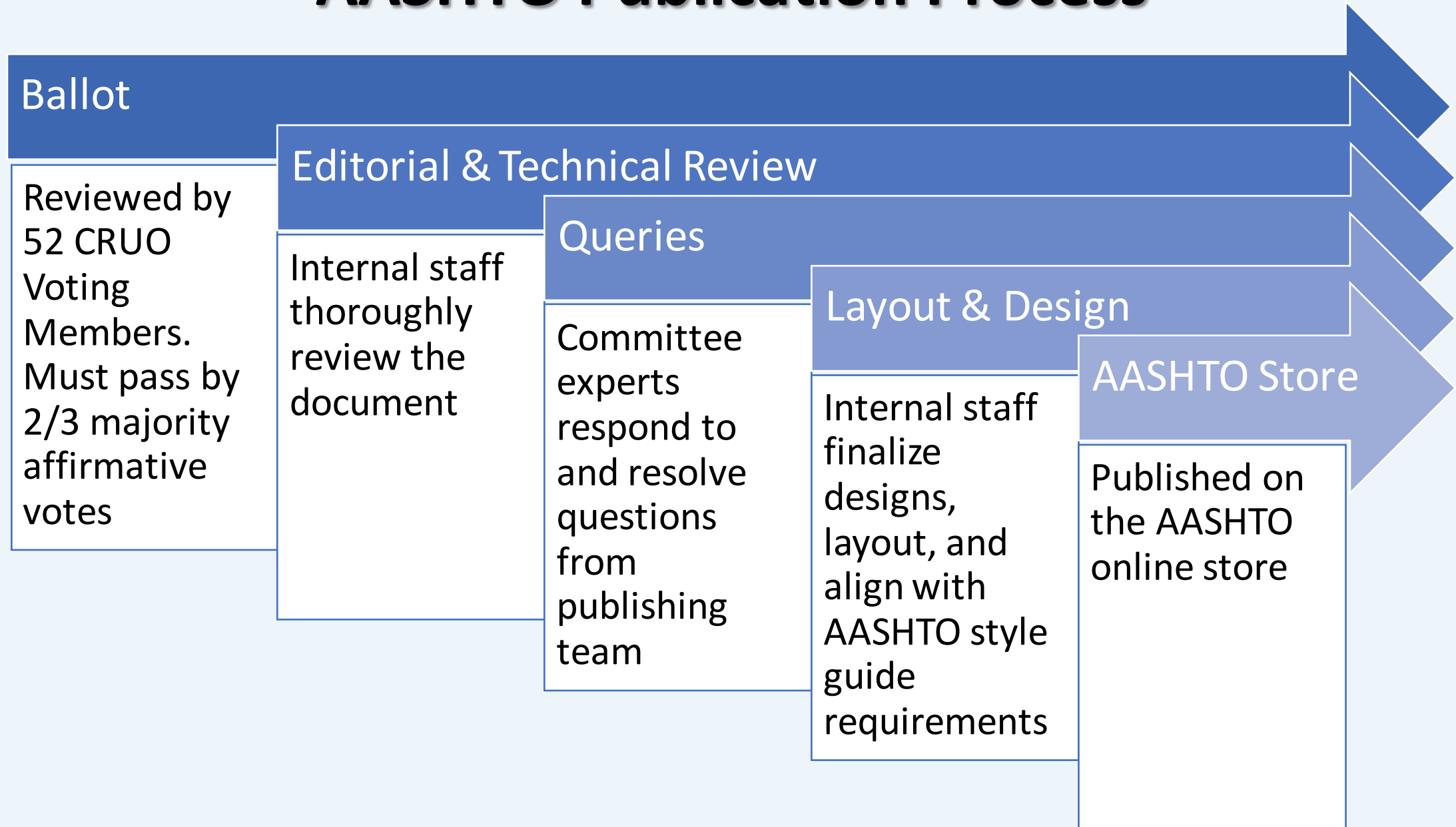


20-123 NCHRP Project



Back to Committee for Review

AASHTO Publication Process



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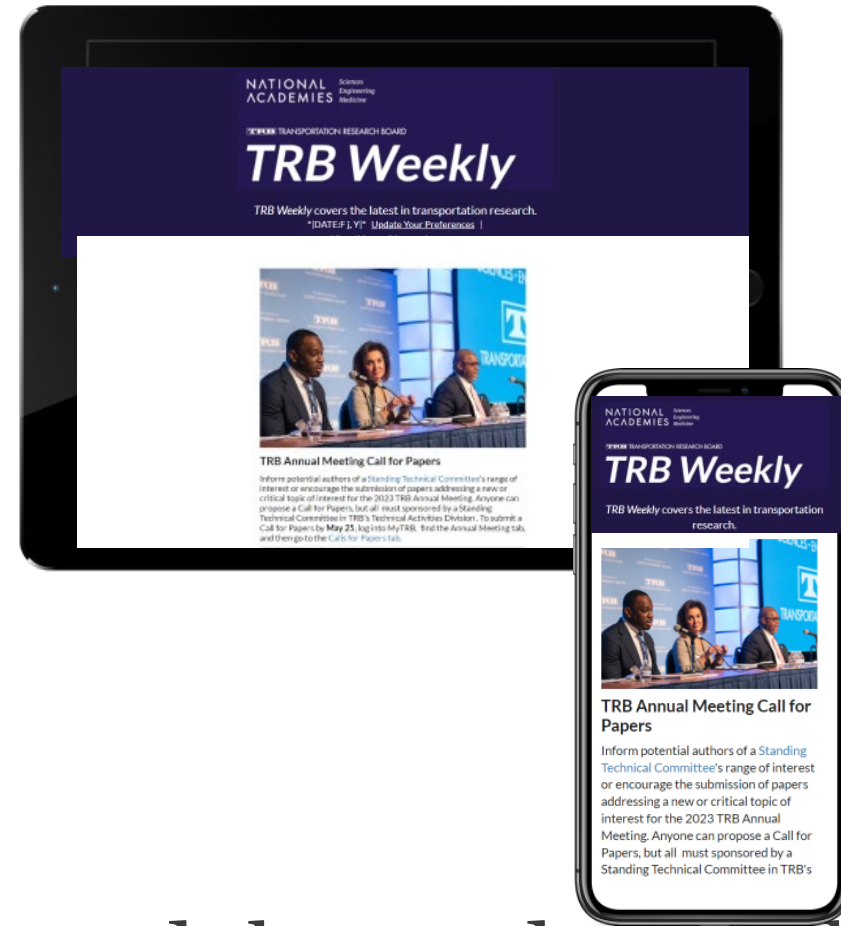
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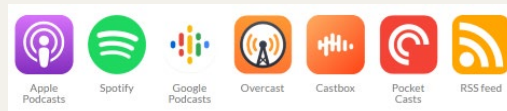
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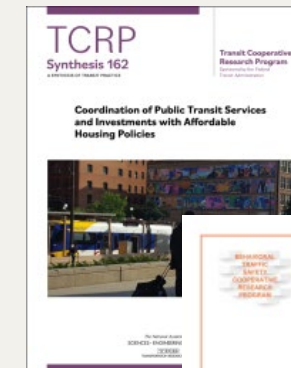
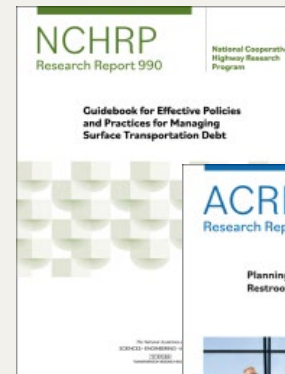
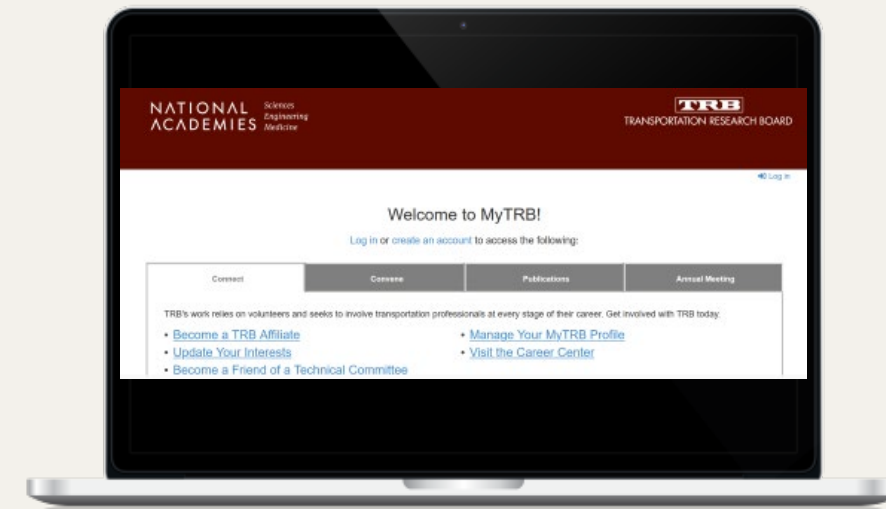
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