MUTCD: Past, Present & Future

1920s

1930s

1940s

1950s

1960s

Gene Hawkins, Ph.D., P.E.
Texas A&M University

2000s

1940s
Gene Hawkins’ Background

Civil Engineering faculty member at Texas A&M University
Joint appointment with the Texas A&M Transportation Institute
Son of traffic engineer
Collector of historic traffic engineering documents
Writing/presenting on MUTCD history since 1991
Chair of NCUTCD
Manual on Uniform Traffic Control Devices

Known as the MUTCD
Contains basic principles for traffic control devices
Essential traffic engineering tool
Extensive information
Long history
Multiple versions - many editions
MUTCD and NCUTCD

**MUTCD**: national TCD standard
- Owned, administered, and revised by FHWA
- National Committee on Uniform Traffic Control Devices
  - Private organization, recommends MUTCD changes to FHWA
  - History traces back to before first MUTCD

Presentation addresses contributions of each to the MUTCD development
Part 1

MUTCD Past
MUTCD Evolution

There have been 10 editions of the MUTCD

### Summary of MUTCD Evolution

<table>
<thead>
<tr>
<th>Edition</th>
<th>MUTCD Era</th>
<th>Pages</th>
<th>Parts</th>
<th>Size (inches)</th>
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<td>1 5/8</td>
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</tbody>
</table>

How did we end up with a such large document on traffic control devices?

*FHWA assumed MUTCD ownership
Traffic Control Devices History

Early markers were used in the Roman Empire
Also used on pioneer trails in America
Automobile age created new demands

Roman Empire  Colonial America  Early 20th Century
Automobile Age
Early Intersection Control

Hand signals, police, and semaphores
Early Traffic Signals

Many different signal designs
More Early Signals
Early Traffic Signs

- Need for devices increased with more automobile travel
- Little coordination between agencies
Early Grade Crossings
Early Traffic Control Devices

The wide variety of devices created the need for uniformity

1914 - 1st electric signal  
Cleveland

1920 - 1st 3-color signal  
Detroit

1911 - 1st centerline  
Michigan
Early Uniformity Efforts

1922 - Multistate signing review
  Mississippi Valley Assoc of State Hwy Dept
  Led to sign shape recommendations

Minnesota Department of Highways
  Manual of Markers and Signs
  Believed to be the first sign manual

1924 - National Conf on Street & Hwy Safety
  Sign color recommendations

1925 - AASHO Joint Board report
  U.S. Highway system
  National signing recommendations
1923 Sign Shape Recommendations

Mississippi Valley Assoc of St Hwy Dept
Number of sides represents hazard level

- RR Grade Crossing
- Stop Intersection
- Warning (speed reduction)
- Caution
- Directions or Regulations
1924 Sign Color Recommendations

National Conference on Street and Highway Safety

For signs and signals

Red - stop

Green - proceed

Yellow - caution

White - directions or distance

Purple - intersection
1925 Joint Board Report

Report of Joint Board on Interstate Highways
AASHO led
Approved by Sec of Agriculture
Developed U.S. Highway system
Included recommendations for standard signs
1927 AASHO Manual

Evolved from Joint Board
First national manual
Rural signs only

Title:
Manual and Specifications for the Manufacture, Display, and Erection of U.S. Standard Road Markers and Signs

Revised 1929 and 1931
1927 Signs

Block letter font
1930 NCHS Manual

Prepared by American Engineering Council

Signs, markings, and signals for urban areas

Title:

Manual on Street Traffic Signs, Signal and Markings

Not Revised
1930 Signs

- Speed Limit 20 Miles
- Through Traffic
- Caution School Zone
- RR
- Curves
Birth of the MUTCD

Problems of two manuals led to creation of the MUTCD

1927 Rural Manual

Joint Committee

1930 Urban Manual

1935 MUTCD
1935 MUTCD

**First MUTCD**
- 1935 mimeograph
- 1937 typeset

**Signs**
- White or yellow
- Diamond, square, circle, octagon, rectangle

**Markings**
- White, yellow, or black

**Signals**
- 3-color signal as standard

Approved as national standard

Published by JCU MUTCD, not a federal document
1935 Signs
The JCU-TCD “deplores the independent procedure of certain jurisdictions in the selection of shapes and color combinations at variance with these standards, and hopes the importance of complete uniformity will be increasingly recognized.”

“Traffic control requirements in any specific case cannot be determined by guesswork. They should be based on sound engineering principles established by factual studies of accidents, speeds, delays, and physical conditions which will show the exact nature of the difficulty and indicate what particular device or method of control is needed.”
1942 MUTCD

Few major changes
Addressed wartime conditions
  Conservation of materials
  Blackout traffic control
ITE added to J CUTCD
Still no federal ownership
War Dept and Civilian Defense assisted preparation

Not Revised
Blackout Devices
1948 MUTCD

Significant rewrite

Signs
- Simplified messages
- Eliminated square signs
- Added advisory plate
- Rounded alphabet

Pavement markings
- Yellow - Double center & barrier line
- White - all other applications
- Edge lines not recommended

Simplified signal warrants

Revised 1954
1948 MUTCD Development

JCUTCD
AASHO, NCSHS, ITE (7 men each + 1 sec [fed])
Continued as national standard (ASA D6.1)
Published by Public Roads Administration
Federal-aid Highway Act of 1944

Authorized Commissioner of Public Roads to require compliance for highways receiving federal aid
“This manual contains the best existing judgment on several points on which research is now in progress or being arranged for ...” “Because such questions, old and new, present a constant need for factual data, the JC has set up a Subcommittee on Research.”

Until uniform laws replace the present wide variation in State laws regarding signs and signals, some jurisdictions may have to permit deviations from the recommendations of this manual. Fortunately, good progress is being made in bringing about the enactment of the desired uniform laws, and eventually such deviations will be reduced to a minimum.”
1948 Signs

- STOP
- SPEED LIMIT 50
- 35 M.P.H.
- STOP AHEAD
- KEEP RIGHT
- BRYAN 8
- HEARNE 25
Early Stop & Yield Signs
1954 Revision

Significant sign changes

Secondary messages eliminated

New Sign
Traffic Signal Legacies

Non-standard traffic signals continued in use through the 1950s and 1960s in some locations

- **Darley 2 bulb signal**
- **Wiley signal**
- **NYC Olives**
Freeway Guide Sign Tests

New Interstate Highway system created signing and marking challenges

BPR research in mid-1950s

Evaluated freeway guide sign design
- Black, blue, and green backgrounds
- Lower case letters

Other new signs

Results lead to new signing guidelines
1958 AASHO Interstate Manual

Created for the new Interstate Highway system

New features

White on green guide signs
Lower case letters
Green on white service signs

Utilized larger sign sizes

Blue service signs added in 1961 revision

New Interstate Signs

INTERSTATE
TEXAS
10

BUSINESS
SPUR
75

56
Metropolis
Utopia

EXIT
30
M.P.H.

REST AREA
2 MILES
Compliance required for federal aid roads

New material:
- Construction traffic control
- Civil defense signing
- Freeway guide signing
1961 MUTCD Development

Prepared by National Joint Committee UTCD

AASHO (7), ITE (7), NCUTLO (7), NACO (2), AMA (2), sec from BPR

Continued as national standard (ASA D6.1)

Submitted by AASHO to BPR for concurrence

Published by Bureau of Public Roads

Federal-aid Highway Act of 1944

Authorized Commissioner of Public Roads to require compliance for highways receiving federal aid
All modifications or new Manual materials must be approved by the five sponsoring organizations. Such approval constitutes both official and professional endorsement of use of the Manual in all States, counties, and cities.

On all streets and highways the need is great for high, uniform standards of traffic control to protect the public investment in the Nation's roads and streets, and to foster safety, convenience, and economy of operation.

In many jurisdictions, particularly small counties and cities, the problem is not simple. Qualified engineers are needed to exercise the engineering judgment inherent in the selection of traffic control devices, just as they are needed to locate and design the roads and streets which the devices complement. Yet many small jurisdictions with responsibility for traffic control do not have qualified engineers on their staffs. Those jurisdictions should seek assistance on difficult problems from the State highway department, their county, a nearby large city, or a qualified traffic consultant.
1961 Signs

- Metropolis Utopia
- US 81
- Texas 56 14
- Yield
- Evacuation Route
- Only
- Flagman 500 FT
- One Lane Road 1000 FT
- Road Construction 1500 FT
1971 MUTCD

Significant rewrite
DOT ownership

New features:
Content: school areas
Color: orange
Shapes: pennant, pentagon

International sign influence
Many new symbols

Yellow markings for opposing traffic

Revised 8 times
1971 MUTCD Development

Continued to be defined as ASA Standard D6.1
Prepared by NJCUTCD
AASHO (7), ITE (7), NCUTLO (7), NAC (2), NLC (1)
Adopted and published by FHWA
Approved by Administrator as National Standard for all highways open to public travel
In recognition of the proven international value and need for symbols, and to present a uniform and better understood system of signing, this 1970 revision includes a wider use of symbols, both in the regulatory and warning series. Color coding is employed more extensively in signs, and to define direction of travel by pavement markings.

This Manual also includes, for the first time, a complete and separate part covering traffic controls for school areas (Part VII).

Advances in technology will produce changes in the highway, the motor vehicle, and in driver proficiency and portions of the system of control devices in this manual will gradually become obsolete. In addition, unique situations often arise for device applications which may require interpretation or clarification of this Manual. It is important to have a procedure for recognizing these developments and for introducing new ideas and modifications into the system.
1978 MUTCD

Update of 1971 edition
Loose leaf (binder) format
   Individual page revisions
New content
   RR-hwy grade crossings
   Bicycle facilities
Yellow markings on left side

Revised 4 times
1978 MUTCD Development

Prepared by the National Advisory Committee on Uniform Traffic Control Devices (an official federal advisory committee)

AASHTO (7), ITE (7), NCUTLO (7), NAC (3), NLC (1), NAGHSR (2), IACP, NEMA (1), ARTBA (1), IBTTA (1)

Continued to be owned, administered, and revised by FHWA

In 1979, FHWA terminated the NAC and assumed full responsibility for developing and revising MUTCD content while agreeing to accepting recommendations

The NCUTCD was created from the NAC membership with its first meeting in Jan 1980
1978 Signs

- Center Lane Only
- Buses and 4 Rider Car Pools Only (6AM-9AM Mon-Fri)
- Bike Route
- Stop Sign
- Man Digging
- Slow Down Sign
Update of 1978 edition
Included new revision (#5)

New content
Recreational/cultural signs
Logo signs
TODS

Planned to be revised only for safety reasons

Rev 3: Part VI
1988 Signs

YELLOWSTONE NATIONAL PARK
2 MILES

TOURIST ACTIVITIES
MYRTLEWOOD GIFT SHOP
GREENFOREST ORCHARD

GAS
EXXON
DIESEL

FOOD
McDonald's

LODGING
COURTWARD

GIFT SHOP

GREENFOREST ORCHARD

EXXON
DIESEL

MYRTLEWOOD GIFT SHOP

HOSPITAL

NEXT RIGHT
MUTCD During the 1990s

Blue ribbon panel (1989)
- Recognize shortcomings of 1988 MUTCD
- Recommended reformat and rewrite of 1988 MUTCD

Need to clarify intent of language

Examples of language challenges

- “shall be permitted”  “may be justified”
- “shall preferably be”  “it is desirable that”
- “normally should”  “it is necessary that”
- “may be required”  “is intended for use”

Two step process: reformat then rewrite

Started in early 1990s
Rewrite/Reformat Effort

First step
Evaluate current language
Reformat language using shall, should, & may
Classify as standard, guidance, option, support (with headings)

Second step
Rewrite reformatted language
Update content
Fix inconsistencies

Multiple proposed rules in mid- to late-1990s
Resulted in 2000 MUTCD
2000 MUTCD

Millennium edition
Reformatted/rewritten
Significantly different from 1988 MUTCD
First with $8\frac{1}{2} \times 11$ pages
First to be on the internet
Many errors & shortcomings
Editorial and technical errors
Errata did not correct all problems

1 Errata
1 Revision
Significant Changes

New structure
Standard, Guidance, Option, Support

New parts added to MUTCD
Low Volume Roads
Highway-Light Rail Transit Grade Crossings

Islands part deleted
Definitions added
Primary units: metric
2000: Selected Key Changes

Legibility index = 40 ft/in
Sign graphics not accurate
Lane ending symbol (W4-2) dropped
Crosswalk lines dropped from crossing signs
New Yield Line
In-road lights

Courtesy of S. Wainwright
2003 MUTCD

Primarily an update of the 2000 MUTCD

Changes

- Editorial improvements
- Graphics corrected
- Technical corrections
- Some new material

Compressed text

982 to 754 pages

2 Revisions
2003: Selected Key Changes

Some new/revised signs
New sign color
  Pink for incident mgmt
Countdown ped signals
Metric sign changes
Accessibility in work zones

Revisions:
  1: Pharmacy signing
  2: Min sign retro
Part 2

MUTCD Present
2009 MUTCD

Current edition (10th overall)
Final rule: Dec 16, 2009
NPA received more comments than any other
1,840 individual letters
15,000+ comments
Many changes
611 significant changes listed in Federal Register final rule
2009: Philosophical Changes

FWHA focus for 2009 MUTCD
- Uniformity
- Complete street concept: all road users
- Aging population
- Innovation

More specific detail, reduced ability to deviate
- Fine tuning of TCD use
- More devices addressed

Compliance dates restructured
- Compliance as part of systematic upgrade

Combine RR and LRT parts

MUTCD applies to private property

New content
- Toll road & managed lanes traffic control
- Purple for toll roads
- Changeable message signs
2009: Selected Key Changes

Paragraphs numbered, guidance italicized, metric values removed

Change in definition for a standard

Added: “Standard statements shall not be modified or compromised based on engineering judgment or engineering study”

Legibility index = 30 ft/in

Increases in sign sizes - 36 in Stop sign required for some situations

Increased requirements for One Way signs

Requirements for warning signs for changes in horizontal alignment

Revised optional lane guide signing

Arrow per lane sign

High-visibility safety apparel

Required for all workers within the public right-of-way

School warning signs: FYG only

Cannot use Speed Limit sign alone to end school speed limit zone

Yield or Stop signs required at passive grade crossings
2009: Signal Changes

12 inch indications for all new installations
Limited use of 8 inch indications
Signal head for each lane when speed $\geq 45$
Backplates required
Flashing yellow arrow for left turns
Hybrid beacon (HAWK) for ped crossing
2009 MUTCD Revisions

Rev 1: engineering judgment & definition of a standard

Added: the MUTCD is not a substitute for engineering judgment

Deleted: standard statements shall not be modified or compromised based on engineering judgment

Rev 2: compliance dates

12 of the previous 58 compliance dates retained
Several of the remaining 12 have been modified
FHWA posted hotlinks version of the 2009 MUTCD

Cross-referenced chapters, sections, figures, and tables
Pop-up definitions
Links to external documents and web sites
Links to official interpretations
Indications of material affected by known errors
31 MB file - download instead of using on-line version

Section 4D.07 Size of Vehicular Signal Indications

Standard:

01. There shall be two nominal diameter sizes for vehicular signal indications: 8 inches and 12 inches. Except as provided in Paragraph 3 below, 12-inch signal indications shall be used for all signal sections in all new signal faces.

Option:

03. Eight-inch circular signal indications may be used in new signal faces only for:

A. The green or flashing yellow signal indications in an emergency-vehicle traffic control signal (see Section 4G.02);
B. The circular indications in signal faces controlling the approach to the downstream location where two adjacent signalized locations are close to each other at approach speeds, horizontal or vertical curves, or other faces for the downstream approach;

Emergency Vehicle Traffic Control Signal—a special traffic control signal that assigns the right-of-way to an authorized emergency vehicle.
Part 3

MUTCD Future
MUTCD Trends

Used by more and more people
Less variation between states
Greater consideration of local level perspective
Size and content growing
  More devices addressed
  Greater specificity for devices
  Some non-TCD material
  TCD standards vs good practices
Near-Term MUTCD Future

Current MUTCD: 2009 edition
Prior expectation: NPA in 2015
Current expectation: NPA in 2019
Final rule near end of 2020 (2020 MUTCD)
NPA Expectations

Expectations (hope?) for NPA:
Contains 200± NCUTCD recommendations (209 approved Jan 09-Jan 19)
Minimal new content not developed/reviewed by NCUTCD
Nothing too controversial
Establish new base from which to develop the next MUTCD
At least 3-4 month docket (desire overlap with NCUTCD meeting)
Likely to be some surprises
NPA Content

Last large MUTCD NPA: January 2008
(proposed rule for 2009 MUTCD)
68 pages, 513 identified changes to MUTCD
6 month comment period

No info on NPA content until published

Federal work on rulemaking is behind a curtain

January 2008 NPA had 1,960 items in docket
Some items were 50+ pages in length
Over 15,000 individual comments
DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

23 CFR Parts 634 and 655

[FHWA Docket No. FHWA–2007–28977]

RIN 2125–AF22

National Standards for Traffic Control Devices; the Manual on Uniform Traffic Control Devices for Streets and Highways; Revision

AGENCY: Federal Highway Administration (FHWA), (DOT).

ACTION: Notice of proposed amendments.

SUMMARY: The MUTCD (also referred to as “the Manual”) is incorporated by our regulations, approved by the Federal Highway Administration, and recognized as the national standard for traffic control devices used on all public roads. The purpose of this notice of proposed amendments is to revise standards, guidance, options, and supporting information relating to the traffic control devices in all parts of the MUTCD. The proposed changes are intended to expedite traffic, promote uniformity, improve safety, and incorporate technology advances in traffic control device application. These proposed changes are being designated as the next edition of the MUTCD.

DATES: Comments must be received on or before July 31, 2008.

ADDRESSES: Mail or hand deliver comments to the U.S. Department of Transportation, Dockets Management Facility, 1200 New Jersey Avenue, SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Mr. Hari Kalla, Office of Transportation Operations, (202) 366–5915; or Raymond Cuprill, Office of the Chief Counsel (202) 366–0791, Federal Highway Administration, 1200 New Jersey Ave., SE., Washington, DC 20590. Office hours are from 7:45 a.m. to 4:15 p.m., e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Electronic Access and Filing

You may submit or retrieve comments online through the Federal eRulemaking portal at: www.regulations.gov.

Electronic submission and retrieval help and guidelines are available under the help section of the Web site. It is available 24 hours each day, 365 days each year. Please follow the instructions. An electronic copy of this document may also be downloaded from the Office of the Federal Register’s home page at: http://www.archives.gov and the Government Printing Office’s Web page at: http://www.access.gpo.gov/nara.

The comments received and its own experience, the FHWA may issue a Final Rule concerning the proposed changes included in this notice.

The notice of proposed amendments being published to address the many advances in technology, research results, and improved traffic and safety management strategies that have occurred since the 2002 initiation of the rulemaking process that led to the 2003 edition of the MUTCD. The FHWA invites comments on these proposed changes to the MUTCD. The FHWA requests that commenters cite the page number and line numbers of the proposed MUTCD text for which each specific comment to the docket about the proposed text is concerned, to help make the FHWA’s docket comment review process more efficient.

A summary of the significant proposed general changes and proposed changes for each of the parts of the MUTCD is included in the following discussion.

Discussion of Proposed General Amendments to the MUTCD

1. The FHWA proposes to develop a new cover page for the new edition of the MUTCD that will maintain general consistency with covers of previous editions but with changes to give it a distinctive appearance, to minimize the possibility of confusion by users.

Although a new cover page has not yet been developed and is not illustrated in the NPA, the FHWA proposes to include a new cover page design in the edition of the MUTCD published as the Final Rule. The FHWA proposes that the date of the new edition to be identified on the cover and elsewhere within the
Featured Result - Docket ID: FHWA-2007-28977
National Standards for Traffic Control Devices; The Manual and Uniform Traffic Control Devices for Streets and Highways; Revision
Agency: Federal Highway Administration (FHWA)
Summary: This rulemaking would revise standards, guidance, options, and supporting information relating to the traffic control devices in all parts of the MUTCD. The intended changes in this rulemaking would expedite traffic, promote uniformity, improve safety, and incorporate...
NCUTCD NPA Review Process

NCUTCD in final stages of adopting process for reviewing NPA

Steps:
1. Assign items to technical committees (TC)
2. Review each item and determine need for Council action:
   a. Same as prior NC recommendation - no Council action necessary
   b. Different from prior NC recommendation or TC recommends changes to NPA language - Council vote required
Docket Comment A: NCUTCD supports original rcmd
Docket Comment B: NCUTCD agrees with NPA
Docket Comment C: NCUTCD recommends change to NPA
Long-Term MUTCD Future

Time to start thinking about MUTCD changes after 2020 edition

Connected and autonomous vehicles
Technological advances in TCDs
Shorter implementation time frames
Greater focus on peds, bikes, and transit
More significant differences between congested urban areas, suburbs, and rural areas - challenges of guidelines that address such a wide range of conditions, users, and environments

MUTCD delivery options and decision-making tools

NCUTCD strategic plan for MUTCD

On NCUTCD website (under links), 79 pages
MUTCD Resources

MUTCD web site

http://mutcd.fhwa.dot.gov

HTML & PDF versions of MUTCD (incl hotlink)

Lists of changes

2009 MUTCD REVISIONS 1 AND 2, DATED MAY 2012

On May 14, 2012, the FHWA published final rules to revise the MUTCD provisions on engineering judgment and compliance dates. The 2009 MUTCD with Revisions 1 and 2 incorporated is now available. The complete text of the Federal Register notices can be accessed at the following links:

- 2009 MUTCD Revision 1 – Engineering Judgment (PDF 221KB, HTML)
- 2009 MUTCD Revision 2 – Compliance Dates (PDF 242KB, HTML)

A U.S. Department of Transportation press release on the adopted revisions is also available.

THE HOTLINKS VERSION OF THE 2009 MUTCD IS NOW AVAILABLE

The Hotlinks version of the 2009 MUTCD (PDF 31MB) has been placed on the MUTCD web site to assist readers who use the electronic version of the MUTCD in navigating through the many cross-references that contained within the Manual. Hotlinks to cross-referenced chapters, sections, figures, and tables; pop-up definitions; links to external documents and web sites; links to official interpretations; and indications of material affected by known errors are all included in this version of the 2009 MUTCD (with Revisions 1 and 2 included). A description of how to use the additional features that are included in the hotlinks version has also been added to the web site.

The Manual on Uniform Traffic Control Devices, or MUTCD defines the standards used by road managers nationwide to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to public traffic. The MUTCD is published by the Federal Highway Administration (FHWA) under 23 Code of Federal Regulations (CFR), Part 655, Subpart F.

The MUTCD, which has been administered by the FHWA since 1971, is a compilation of national standards for all traffic control devices, including road markings, highway signs, and traffic signals. It is updated periodically to accommodate the nation's changing transportation needs and address new safety technologies, traffic control tools and traffic management techniques.

On December 16, 2009 a final rule adopting the 2009 Edition of the MUTCD was published in the Federal Register with an effective date of January 15, 2010. States must adopt the 2009 National MUTCD as their legal State standard for traffic control devices within two years from the effective date. The Federal Register notice, which provides detailed discussion of the FHWA's decisions on major changes from the 2003 edition, can be viewed at http://eblvett.access.gpo.gov/2009/pdf/fr-v75n2.pdf (PDF, 710KB).

FHWA does not print copies of the MUTCD. National organizations have partnered and printed hard copies of the MUTCD. These hard copies are available for sale. Go to ATSSA, ITE, NHTC, or INSA to get sales information.

On May 14, 2012 final rules adopting Revisions 1 and 2 of the 2009 MUTCD were published in the Federal Register with an effective date of June 13, 2012. The Federal Register notices, which provide detailed discussions of the FHWA's decisions can be viewed at:

- Revision 1 - National Standards for Traffic Control Devices; the Manual on Uniform Traffic Control Devices for Streets and Highways; Revision; Final Rule [FHWA Docket No. FHWA-2010-0170] (PDF 20KB, HTML)
- Revision 2 - National Standards for Traffic Control Devices; the Manual on Uniform Traffic Control Devices for Streets and Highways; Revision; Final Rule [FHWA Docket No. FHWA-2010-0159] (PDF 44KB, HTML)
Evolution of the MUTCD: Early Standards for Traffic Control Devices

BY H. GENE HAWKINS, JR.

Seventy years ago, traffic control devices were a concern of relatively few individuals in the United States. Signs and markings were placed and maintained by auto clubs, local agencies, or state highway departments, with little regard to consistency in the design and use of traffic control devices. The MUTCD, first published in 1935, has always been one of the “bibles” of the profession and continues in that capacity today. MUTCD History Resources

Search “Gene Hawkins MUTCD” - goes to CE Profs website

Select MUTCD History link

MUTCD history PPT presentation

ITE Journal articles

Scans of old MUTCDs

One day in the late 1980s, I was rummaging through my parent’s garage and came across a 1948 MUTCD that my father used when he was employed by the California Highway Traffic in the mid-1950s. While reviewing that document, I found that stop signs were yellow, highway centerlines could be white, and certain other signs or markings did not exist. It was an eye-opening experience that led me to begin collecting old traffic engineering books. In 1990, I was fortunate enough to be able to obtain the national MUTCD from the Eno Foundation for Traffic Safety. These documents provided great insight into how our current system of traffic control devices has evolved over several generations, insight which I felt was largely lost to our current generation of traffic engineers. Armed with these documents, I prepared a series of papers on MUTCD history for ITE Journal. These papers appeared in the ITE Journal of the Institute of Transportation Engineers. Gene Hawkins also prepared a description of the evolution of the use of paper marking color as part of MUTCD history. MUTCD History Resources

Links to Previous Editions of the MUTCD

- 2003 and 2000 MUTCDs (link to previous editions on the FHWA website)
- 1998 MUTCD
- 1978 MUTCD (Richard Moeur Manual of Traffic Signs site)
- 1971 MUTCD (Richard Moeur Manual of Traffic Signs site)
- 1961 MUTCD (Richard Moeur Manual of Traffic Signs site)
- 1948 MUTCD (scan provided by FHWA)
  - 1948 MUTCD (scan provided by FHWA)
- 1935 MUTCD (scan provided by FHWA)
  - 1935 MUTCD (scan provided by FHWA)
- 1930 National Conference on Street and Highway Safety urban TCD manual
- AASHTO Manual and Specifications for the Manufacture, Display, and Installation of Traffic Control Devices
- MUTCD History Resources
- MUTCD History Resources
- MUTCD History Resources
- MUTCD History Resources
- MUTCD History Resources
- MUTCD History Resources
- MUTCD History Resources
- MUTCD History Resources
Signs Not in the Next MUTCD

- Do Not Enter
- Rail Crossing
- Stop on Red
- Slow School Zone
- East
- Drive Carefully Substandard Roadway
Questions