NOTE: This is a recommendation by the NCUTCD to FHWA proposing to modify the MUTCD. This recommendation is not a revision to the MUTCD and does not constitute official standards, guidance, or options. No proposed revision to the MUTCD is effective unless and until approved by FHWA through an Interim Approval or through the Federal rulemaking process.

TECHNICAL COMMITTEE: Signals Technical Committee

TOPIC: Flashing Beacon Sizes

STATUS/DATE OF ACTION: Approved by NC Council, submit to FHWA

Signals Approval: June 2011 & January 2012

Transmitted to Sponsors: November 2011

Council Approval: January 20, 2012

ORIGIN OF REQUEST: STC, June 2012 Meeting

AFFECTED SECTIONS OF MUTCD: 4L.01

SUMMARY:
In the 2003 MUTCD, the lens size for flashing beacons was based on information in Chapter 4D which permitted two sizes of vehicular signal lenses – 8-inch & 12-inch. Chapter 4D included standards and guidance addressing which of the sizes had to be used or should be used under certain circumstances.

Chapter 4D in the 2009 MUTCD established 12-inch lenses as the required size for new signal faces other than for specific listed exceptions. Beacons are not listed as one of the exceptions. As a result, the lens size for beacons was inadvertently changed to 12-inch.

DISCUSSION
Following the publication of the 2009 MUTCD, FHWA received an inquiry concerning the size (or sizes) for beacons. FHWA reviewed the NPA for the 2009 MUTCD, the comments to the docket, and the Final Rule. It was their conclusion that the new provision in Section 4D.07 concerning the use of 12-inch signal indications for all new signal faces was intended to apply to vehicular signal faces only and that new flashing beacons were not intended to be required to be the 12-inch size.

The STC concurs with this and has prepared the following proposed revisions to Section 4L.01 to permit the use of 8-inch beacons as well as 12-inch beacons under some circumstances. 12-inch beacons would be required (shall) under some
circumstances and recommended (should) under some circumstances. The proposed revisions were based on information in Chapter 4D of the 2003 MUTCD concerning lens size.

**RECOMMENDED CHANGES TO THE MUTCD (Section 4L.01)**

Note: No 2009 MUTCD text is proposed for deletion. New text proposed to be added is shown in **underline blue**.

**CHAPTER 4L. FLASHING BEACONS**

**Section 4L.01 General Design and Operation of Flashing Beacons**

Support:

A Flashing Beacon is a highway traffic signal with one or more signal sections that operates in a flashing mode. It can provide traffic control when used as an intersection control beacon (see Section 4L.02) or it can provide warning when used in other applications (see Sections 4L.03, 4L.04, and 4L.05).

**Standard:**

Flashing Beacon units and their mountings shall comply with the provisions of Chapter 4D, except as otherwise provided in this Chapter.

Beacons shall be flashed at a rate of not less than 50 or more than 60 times per minute. The illuminated period of each flash shall be a minimum of 1/2 and a maximum of 2/3 of the total cycle.

A beacon shall not be included within the border of a sign except for SCHOOL SPEED LIMIT sign beacons (see Sections 4L.04 and 7B.15).

**Guidance:**

If used to supplement a warning or regulatory sign, the edge of the beacon signal housing should normally be located no closer than 12 inches outside of the nearest edge of the sign.

**Option:**

An automatic dimming device may be used to reduce the brilliance of flashing yellow signal indications during night operation.

**Standard:**

There shall be two nominal diameter sizes for flashing beacon lenses: 12-inch and 8-inch. Twelve-inch signal lenses shall be used for flashing beacon lenses:

A. For indications for approaches where road users view both flashing beacon and lane-use control signal heads simultaneously;

B. If the nearest flashing beacon signal face is between 120 feet and 180 feet beyond the stop line, unless a supplemental near-side flashing beacon signal face is provided;

**Guidance:**

Twelve-inch signal lenses should be used for flashing beacon indications for approaches with a posted speed limit or 85th-percentile approach speed exceeding 40 mph or without curbs where only post-mounted signal heads are used.

**VOTE:** Unanimous “FOR”