993  OBJECT MARKERS AND DELINEATORS
(REV 01-14-2020)

SUBARTICLE 993-2.2.2 is deleted and the following substituted:

**993-2.2.2 Color:** The post shall be opaque white. The yellowness index shall not exceed 12 when tested in accordance with ASTM E313. The daylight 45 degree, 0 degree luminous directional reflectance shall be a minimum of 70 when tested in accordance with ASTM E1347.

SUBARTICLE 993-2.4.3 is deleted and the following substituted:

**993-2.4.3 Color:** The plastic post shall be opaque white. The yellowness index shall not exceed 12 when tested in accordance with ASTM E313. The daylight 45 degree, 0 degree luminous directional reflectance shall be a minimum of 70 when tested in accordance with ASTM E1347 or ASTM E1164.

SUBARTICLE 993-2.5.1 is deleted and the following substituted:

**993-2.5.1 Dimensions:** The delineator shall have a minimum height of 36 inches above the pavement surface and have a minimum diameter of 2 inches.

SUBARTICLE 993-2.5.2 is deleted and the following substituted:

**993-2.5.2 Post Base:** The base shall be mechanically anchored to the pavement and be capable of withstanding 50 vehicle impacts without damage.

SUBARTICLE 993-2.5.3 is deleted and the following substituted:

**993-2.5.3 Color:** The plastic post shall be opaque white. The yellowness index shall not exceed 12 when tested in accordance with ASTM E313. The daylight 45 degree, 0 degree luminous directional reflectance shall be a minimum of 70 when tested in accordance with ASTM E1347 or ASTM E1164.

SUBARTICLE 993-2.5.5 is deleted and the following substituted:

**993-2.5.5 Impact Performance:** To resist an impact of a test vehicle, the post must restore to within 10 degrees of vertical in any direction, and not have a crack or tear through more than 50% of its cross section. List/Lean must be measured from the point the post protrudes from the base to the top edge of the post. For acceptance purposes, there should be no post failures and no more than two posts may list between 5 degrees and 10 degrees after receiving fifty vehicle impacts.

Impact testing must be performed in accordance with NTPEP Evaluation of Temporary Traffic Control Devices: Flexible Delineators, for the category of High Speed Applications. Testing must be performed by a facility that is listed on the
Laboratories Accredited to Crash Test Roadside Safety Hardware which can be found at the following URL: [http://tf13.org/Subcommittee_7_Test_Facilities.php](http://tf13.org/Subcommittee_7_Test_Facilities.php).