Subcommittee on Materials

AASHTO Standards Update

Asphalt Mixture ETG

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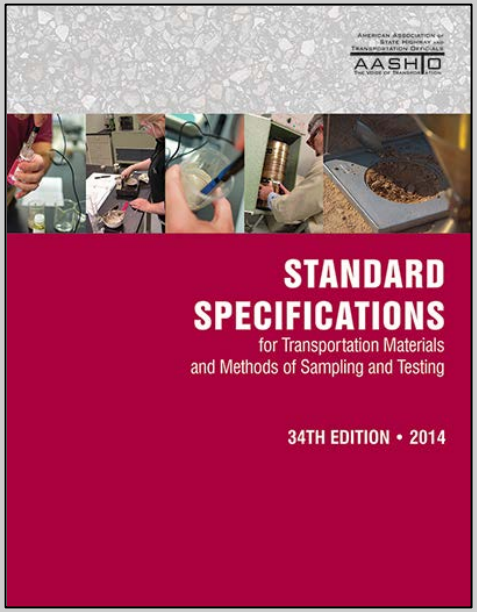
Baton Rouge, LA

OVERVIEW

- 2014 Materials Book changes
  - TS 2d and TS 2c
- 2014 SOM Annual Meeting
- Fall 2014 SOM ballot items
  - TS 2d and TS 2c
- 2015 TS Webinar & SOM Annual Meeting



2014 Book

7 Standards Updated/Changed in TS 2d
5 New Standards

1) T 245, " Resistance to Plastic Flow of Asphalt Mixtures Using Marshall Apparatus"

2) T 283, “Resistance of Compacted Asphalt Mixtures to Moisture-Induced Damage”

3) T 312, Preparing and Determining the Density of Asphalt …By … SGC”

4) T 321, “Fatigue Life …Subjected to Repeated Flexural Bending”

6) MP-23 (MP 15**)**, “Specification …RAS…in New Asphalt Mixtures”

7) PP-78 (PP 53**)**, “Design Considerations… RAS in New Asphalt Mixtures”

8) PP 60, “ Preparation of Cylindrical Performance Test Specimens Using SGC”

9) TP 107, ”Determining the Damage Characteristic Curve of Asphalt Concrete from Direct Tension Cyclic Fatigue Test” (DT-VECD)

10) PP 77, “Materials Selection and Mixture Design of PFC”

11) TP 108, “The Abrasion Loss of Asphalt Mixture Specimens”

12) R 35, “Superpave Volumetric Design for Asphalt Mixtures”

(Standards in Bold are New)

2014 Book

14 Standards Updated/Changed in TS 2c

1) *M 156, "Requirements for Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures"*
2) R 47, "Reducing Samples of Hot Mix Asphalt (HMA) to Testing Size"
3) *R 59, Recovery of Asphalt Binder from Solution by Abson Method"*
4) T 30, "Mechanical Analysis of Extracted Aggregate"
5) *T 37, Sieve Analysis of Mineral Filler for Hot Mix Asphalt (HMA)"*
6) T 164, "Quantitative Extraction of Asphalt Binder from Hot Mix Asphalt (HMA)"
7) T 269, "Percent Air Voids in Compacted Dense and Open Asphalt Mixtures"
8) *T 275, Bulk Specific Gravity (G_{mb}) of Compacted Hot Mix Asphalt (HMA) Using Paraffin-Coated Specimens"*
9) T 287, "Asphalt Binder Content of Asphalt Mixtures by the Nuclear Method"
10) T 305, "Determination of Draindown Characteristics in Uncompacted Asphalt Mixtures"
11) T 319, "Quantitative Extraction and Recovery of Asphalt Binder from Asphalt Mixtures"
12) T 324, "Hamburg Wheel-Track Testing of Compacted Hot Mix Asphalt (HMA)"
13) *T 329, "Moisture Content of Hot Mix Asphalt (HMA) by Oven Method"*
14) *T 331, "Bulk Specific Gravity (G_{mb}) and Density of Compacted Hot Mix Asphalt (HMA) Using Automatic Vacuum Sealing Method"*

Standards in Blue were mainly editorial changes

TS 2d – 2014 SOM Annual Meeting

- TS 2d identified Stewards for all Standards
- Stewards will need to be identified for any future new Standards for TS 2d
- Spring TS letter ballot reviewed –items now go to 2014 SOM ballot
- New AASHTO Guides? – NCHRP 673- Manual for Design of HMA

2014 SOM Ballot – TS2d items

(any changes will be in 2015 AASHTO Book)

- New Provisional Standards:
  - TP xyz– ‘‘Rutting Resistance of Asphalt Mixtures using IRLPD”
  - TP xyz–”Determination of the Voids of Dry Compacted Filler”

- REVISE T 245 – split into 2 standards- compaction Method and Test(s)

- REVISE R 35, “Superpave Volumetric Design for Asphalt Mixtures”
  - Clarification on Ps (Section 9) and blending procedure (Section 6.5 & 6.7)

- REVISE MP 23 to clarify section 5.1 on “dry” shingles by adding: Gradation requirements apply to processed and dry shingle material prior to the extraction of the asphalt binder.

2014 SOM Ballot – TS2d items

(any changes will be in 2015 AASHTO Book)

- REVISE T 312, "Preparing and …Density …by Means of SGC"–
  - clarification on equipment by adding: Section 4.1.3 The loading system, ram, and pressure indicator shall be capable of providing and measuring a constant vertical pressure of 600 ± 60 kPa during the first five gyrations, and 600 ± 18 kPa during the remainder of the compaction process.

- REVISE TP 79, "Determining the Dynamic Modulus and Flow Number for Asphalt Mixtures Using the AMPT"
  - Section 6.2. Dynamic Modulus Test System—Meeting the requirements of the equipment specification for the Simple Performance Test (SPT) System, Version 3.0 except for the following provisions. In the referenced equipment specification, Sections 10.7 and 11.5 shall require a temperature sensor range of 0 to 75°C (32 to 167°F) and Section 11.1 shall require a temperature control range from 4 to 70 °C (39 to 158°F).
  - Add Appendix X.3 – Small Scale Samples

  Test specimens smaller than the standard AMPT geometry can be obtained from constructed pavement layers to measure the dynamic modulus for use in applications such as forensic investigations and field monitoring of test sections. 38 mm diameter specimens can be cored horizontally from within the bounds of construction lifts that are 50mm thick. …

2014 SOM Ballot – TS2c items

(any changes will be in 2015 AASHTO Book)

- R XYZ, "Sampling Asphalt Mixtures After Compaction (Obtaining Cores)"
  - Proposed new standard practice for obtaining core samples of asphalt mixtures
- T 30, "Mechanical Analysis of Extracted Aggregate"
  - Modify Note 2 to incorporate findings from TRB Research Results Digest 389 concerning mechanical washing devices
  - Modify Note 7 to add maximum limit for overloading 12-in. sieve
- T 209, "Theoretical Maximum Specific Gravity (G_{mm}) and Density of Hot Mix Asphalt (HMA)"
  - Major revisions to move standardization procedure to annex and eliminate water temperature adjustment among other changes
- T 319, "Quantitative Extraction and Recovery of Asphalt Binder from Asphalt Mixtures"
  - Modify Section 13.1.2.1 to improve definition of "constant mass"

2014 SOM Ballot – TS2c items

(any changes will be in 2015 AASHTO Book)

- T 329, “Moisture Content of Hot Mix Asphalt (HMA) by Oven Method”
  - Add wording to address material used to line sample container
  - Change formula and example for calculating moisture content
- T XYZ, “In-Place Density of Asphalt Mixtures by Nuclear Methods”
  - Proposed new standard method for determining in-place density of asphalt mixtures by nuclear methods
- TP XYZ-01, “Determining the Interlayer Shear Strength of Asphalt Pavement Layers”
  - Proposed new provisional method for determining interlayer shear strength of asphalt pavement layers
- TP XYZ-02, “Determining the Tack Coat Quality of Asphalt Pavement in the Field or Laboratory”
  - Proposed new provisional method for measuring adhesion of tack coat materials

2015 AASHTO Publication Cycle

SOM Ballot Items to be Issued ~ **October 2014**

- **30 days for ballot**
- **Friends should get (non-voting) copy of ballot**

- Ballot Items for TS to be reviewed during **Mid-Year (~ February 2015)** webinars
  - TS 2c: March 2015
  - TS 2d: February 2015
- Revisions Published **July 2015**

SOM Website

Research Task Force

TS Research liaisons

2015 SOM Annual Meeting

Subcommittee on Materials

Thanks for your input to SOM!

- And Special Thanks to Chris Abadie who is taking over as TS 2d Chair!

- I’ll be here: