

STATE

OF

TENNESSEE

(Rev. 5-18-15)
(Rev. 11-16-15)

January 1, 2015

Supplemental Specifications - Section 500

of the

Standard Specifications for Road and Bridge Construction

January 1, 2015

Subsection 501.03 (pg. 395), 5-18-15; 3. Mix Design Submittal, Replace the first paragraph with the following: “Instead of the above mix design submittal, a request to use an existing design may be submitted for approval provided the design has been used on a state funded project within the last six (6) months. The approval of this concrete design submittal will not relieve the Contractor of the responsibility of providing concrete meeting the requirements of these Specifications. A temporary mix design may be issued if the 7-day or 14-day compressive strengths exceed the required 28-day strengths.”

Subsection 501.03 (pg. 399-402) 11-16-15; B. Quality Control and Acceptance of Concrete, adjust the following:

“1. Test to determine aggregate gradations (AASHTO T 27 with AASHTO T 11 when required).

Conduct a combined belt gradation before work starts and at least daily to verify consistency if using a dynamic, multi-aggregate feed system.

3. Calibrate the weighing systems, aggregate feed flow rate and weigh bridges, water meters, and admixture dispensing systems before starting production.

4. Ensure accurate weighing or flow rate of the aggregates and cement, the proper metering of water and admixtures, and the quality of water.

6. Adjust mix proportions due to actual moisture content of both coarse and fine aggregates, with moisture content determined according to AASHTO T 255. If using a dynamic aggregate weighing system, multi-aggregate proportioning adjustments are to be made by using an in-bin moisture sensor.”

7. Conduct slump (AASHTO T119) or slump flow (ASTM C1611) and air tests (AASHTO T152).

Page 401- “Make, cure, and transport all early break cylinders (7-14 day, etc.) according to AASHTO T 23, and deliver to the Regional laboratory or other established satellite laboratories

for testing. Make all early break cylinders (7-14 day, etc.) for self-consolidating concrete according to ASTM C1758, and deliver to the Regional laboratory or other established satellite laboratories for testing.”

Page 402 - “Correct batch weights or aggregate feed flow rates to compensate for surface moisture on the aggregate at the time of use. The Contractor...”

Subsection 501.04 (pg. 402) 11-16-15; replace the following:

“A. Batching Plant, Multi-Aggregate Feed System, and Equipment,

1. General. The batching plant shall include bins, weighing hoppers or belt feeds with weigh bridges and load cells, and scales. If using cement in bulk,...

2. Bins and Hoppers- Add the following new paragraph under the existing paragraph

For multi-aggregate feed systems, provide bins as noted with variable size openings and variable speed belts. Each bin must have a calibrated moisture sensor to adjust aggregate feed flow rates. Assure consistent, uninterrupted aggregate flow and consistent belt speeds once aggregate feed system is calibrated.

3. Scales- Add the following new paragraph under the last paragraph in the section.

For multi-aggregate feed systems, provide a dual idler weight bridge with load cells to accurately weigh the actual aggregate flow rate.”

Subsection 501.04 (pg. 404) 11-16-15; B. Mixers, removed the complete 4th paragraph:

~~“All mixers shall have blade wear indicators. Repair the pick up and throw over blades in the drum or drums once the blade wear reaches the blade wear indicator or when holes are worn through the blades. Place the top of the blade wear indicator at 90% of the total height of the radial part of the blade. Retain at the jobsite or central plant a copy of the manufacturer’s design showing dimensions and arrangements of blades. The blade wear indicator shall be a minimum of 1/4 inch thick steel, 2 inches wide by 6 inches long. Locate the indicators as shown in the Division of Materials and Test, Circular D-9.”~~

Subsection 501.17 (pg. 424) 11-16-15; A. Surface Testing, modify the following:

~~“3. Ramps sections where the design speed is greater than 40 miles per hour-~~

(a) Test sections shall terminate 100 feet from a stop or slow speed yield condition

(b) ~~Test sections shall terminate at the beginning of a superelevation transition into a section not meeting the greater than 40 miles per hour criteria~~Superelevated sections greater than 40 miles per hour design speed must be ground in accordance with **Table 501.17-1**

4. Ramps where the design speed is 40 miles per hour or less

(a) Test sections shall terminate 100 feet from a stop or slow speed yield condition

(a) Superelevated sections with a design speed of 40 miles per hour or less must be ground in accordance with **Table 501.17-2**

Subsection 501.17 (pg. 425) 11-16-15; B. Pay Factors and Required Corrective Action, modify the following:

“Payment factors and required corrective actions relative to profile indexes for ramps with ~~design posted~~ speeds of 40 MPH or less shall conform to Table 501.17-2.

Table 501.17-2: Pay Factors & Corrective Action for Ramps with ~~Design Posted~~ Speeds of 40 mph or less

Profile Indexes	Pay Factor	Corrective Action
<10 inches per mile	105%	None
10 to < 20 inches per mile	100%	None
20 to < 23 inches per mile	98%	Grind to 20 inches per mile
23 plus inches per mile	95%	Grind to 20 inches per mile