
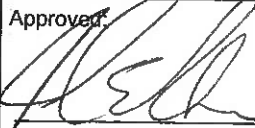


To:		New York State Department of Transportation ENGINEERING BULLETIN	EB 05-006
Expires one year after issue unless replaced sooner			
Title: REPLACEMENT PAGES 5 AND 6 OF 7 FOR EI 04-021			
Distribution: <input checked="" type="checkbox"/> Manufacturers (18) <input checked="" type="checkbox"/> Local Govt. (31) <input checked="" type="checkbox"/> Agencies (32)		<input type="checkbox"/> Surveyors (33) <input checked="" type="checkbox"/> Consultants (34) <input checked="" type="checkbox"/> Contractors (39) <input type="checkbox"/> _____ ()	Approved:  _____ John E. Rondinaro, Director, Materials Bureau Date: 1/19/05

ADMINISTRATIVE INFORMATION:

- This Engineering Bulletin (EB) is effective immediately.
- Superseded Issuances: None.
- Modified Issuances: EI 04-021.
- Disposition of Issued Materials: The issued replacement pages will become part of EI 04-021.

PURPOSE: The purpose of this EB is to issue replacement pages for pages 5 and 6 of 7 for EI 04-021.

TECHNICAL INFORMATION: EI 04-021 did not properly reference two new item numbers in Section 55 of the Standard Specifications. Items 555.10 Structural Concrete, Class D, and 555.11 Structural Concrete, Class DP were not properly listed as new items in the EI. The replacement page 5 of 7 is issued to correct that.

IMPLEMENTATION: The transmitted replacement pages should be inserted immediately.

TRANSMITTED MATERIALS: Replacement pages 5 and 6 of 7 for EI 04-021.

CONTACT: Any questions related to this EB or the attached replacement pages should be directed to Donald Streeter of the Materials Bureau at (518) 457-5956 or dstreeter@dot.state.ny.us.

557.01 M	Superstructure Slab with Integral Wearing Surface – Bottom Formwork Required
557.05 M	Superstructure Slab with Integral Wearing Surface – Bottom Formwork Not Required
557.20 M	Structural Approach Slab with Integral Wearing Surface
16557.4000 M	Exodermic Bridge Deck With Class DP Concrete
08557.4001 M	Exodermic Bridge Deck With Class DP Concrete
08557.4011 M	Exodermic Bridge Deck With Class DP Concrete (Precast)
06557.6000 M	Lightweight High-Performance Concrete Sidewalks
04558.0200 M	Diamond Grinding and Texturing of Structural Slab
16563.5000 M	48 MPa Structural Concrete
06569.3000 M	Lightweight High-Performance Concrete Bridge Barrier
578.02nnnn M	Overlay Concrete, Class E
578.03nnnn M	Reconstruction Concrete, Class D or E
11583.2001 M	Stabilize Rock Slope With Shotcrete (Square Meters)
11583.2002 M	Stabilize Rock Slope With Shotcrete (Cubic Meters)
11583.2003 M	Stabilize Rock Slope With Shotcrete (Bags)
11583.3001 M	Vertical and Overhead Repairs With Low Pressure Spray Mortar No Reinforcement Bar Encasement
11583.3002 M	Vertical and Overhead Repairs With Low Pressure Spray Mortar Reinforcement Bar Encasement
11584.070901 M	Furnish and Placement of Rapid Setting Concrete Bridge and Approach Slab Repairs
11584.0709 M	Surface Preparation for Rapid Setting Concrete Bridge and Approach Slab
584.20nnnn M	Overlay Concrete, Microsilica Concrete
584.21nnnn M	Overlay Concrete, Class DP
584.22nnnn M	Reconstruction Concrete, Class D, DP or Microsilica Concrete
09595.5000 M	Membrane Waterproofing System for Structural Slabs
11595.5001 M	Hot Applied Waterproofing Membrane
18603.0501 M	Lining Existing Culvert With Concrete Lined Corrugated Steel Pipe
18603.0511 M	Lining Existing Culvert With Corrugated Steel Pipe
18603.0521 M	Lining Existing Culvert With Corrugated Aluminum Pipe
09603.0523 M	Lining Existing Structural Plate Pipe Arch With Corrugated Aluminum...
25606.3042 M	Single Slope Traffic Barrier
10607.9968 M	Noise Barrier Footings
02615.8003 M	Galvanized Steel Pipe Handrail
11662.6000 M	New Empire Subway (ECS) Facilities

• The following new Item numbers are transmitted by this EI:

555.10 M	Concrete for Structures, Class D
555.11 M	Concrete for Structures, Class DP
557.0101 M	Superstructure Slab with Integral Wearing Surface – Bottom Formwork Required – Type 1 Friction
557.0102 M	Superstructure Slab with Integral Wearing Surface – Bottom Formwork Required – Type 2 Friction
557.0103 M	Superstructure Slab with Integral Wearing Surface – Bottom Formwork Required – Type 3 Friction
557.0109 M	Superstructure Slab with Integral Wearing Surface – Bottom Formwork Required – Type 9 Friction
557.0501 M	Superstructure Slab with Integral Wearing Surface – Bottom Formwork Not Required – Type 1 Friction
557.0502 M	Superstructure Slab with Integral Wearing Surface – Bottom Formwork Not Required – Type 2 Friction
557.0503 M	Superstructure Slab with Integral Wearing Surface – Bottom Formwork Not Required – Type 3 Friction
557.0509 M	Superstructure Slab with Integral Wearing Surface – Bottom Formwork Not Required – Type 9 Friction
557.2001 M	Structural Approach Slab with Integral Wearing Surface – Type 1 Friction
557.2002 M	Structural Approach Slab with Integral Wearing Surface – Type 2 Friction

EI 04-021 Page 6 of 7

557.2003 M	Structural Approach Slab with Integral Wearing Surface – Type 3 Friction
557.2009 M	Structural Approach Slab with Integral Wearing Surface – Type 9 Friction
578.1201nn M	Overlay Concrete, Class E – Type 1 Friction
578.1202nn M	Overlay Concrete, Class E – Type 2 Friction
578.1203nn M	Overlay Concrete, Class E – Type 3 Friction
578.1209nn M	Overlay Concrete, Class E – Type 9 Friction
578.1300nn M	Reconstruction Concrete, Class D or E
584.3001nn M	Overlay Concrete, Microsilica Concrete – Type 1 Friction
584.3002nn M	Overlay Concrete, Microsilica Concrete – Type 2 Friction
584.3003nn M	Overlay Concrete, Microsilica Concrete – Type 3 Friction
584.3009nn M	Overlay Concrete, Microsilica Concrete – Type 9 Friction
584.3101nn M	Overlay Concrete, Class DP – Type 1 Friction
584.3102nn M	Overlay Concrete, Class DP – Type 2 Friction
584.3103nn M	Overlay Concrete, Class DP – Type 3 Friction
584.3109nn M	Overlay Concrete, Class DP – Type 9 Friction
584.3200nn M	Reconstruction Concrete, Class D, DP or Microsilica Concrete

TRANSMITTED MATERIALS: This EI transmits shelf notes to the following sections and subsections: Section 501, Section 555, Section 557, Section 566, Section 567, Section 569, Section 578, Section 579, Section 582, Section 583, Section 584, §703-07.

BACKGROUND: Background information is given below by section.

Section 501 and §703-07: The revisions to Section 501 are technical in nature.

In the 1970s the Department introduced requirements for fine aggregate used in PCC pavements and bridge decks, aimed at providing adequate friction in wet conditions. In 1999 the Department began its first significant review of these requirements since their adoption. The performance of both fine and coarse aggregates were reviewed in two separate studies. The Materials Bureau anticipates publishing the results of these studies in the near future.

Fine aggregate performance was reviewed because the Department's previous requirement was more stringent than the AASHTO recommended requirement. The Department's study found no justification for the Department's elevated threshold. The limit set in the attached shelf note to Section 501 is the limit recommended by AASHTO.

Prior to this EI, the Department had no standard for friction requirements for coarse aggregate in PCC wearing surfaces. The 1976 AASHTO Guidelines for Skid Resistant Highway Pavement Surfaces reads, "Coarse aggregate will not affect the skid resistance of concrete pavement, until it becomes exposed due to surface wear. The performance record of the coarse aggregate under consideration should be evaluated in terms of skid resistance."

Based on this recommendation the Department initiated an evaluation of coarse-aggregate friction performance in New York State. The study showed conclusively that once the coarse aggregate is exposed, the hardness of that coarse aggregate controls the pavement's ability to resist polishing under traffic, not the fine aggregate. Also, the performance of various types of coarse aggregates under various traffic conditions mirrored the performance of coarse aggregates in hot mix asphalt (HMA) pavement. Based on these findings the specification revisions follow similar requirements as exist for friction aggregate in HMA pavement, taking into account the differences in gradation and production process between HMA and PCC.

The revised friction aggregate requirements were developed in cooperation with: New York Construction Materials Association, American Concrete Pavement Association, New York City Concrete Promotional Council, and the Federal Highway Administration.

Concrete made with a combination of high-alkali cement and reactive aggregates is susceptible to deterioration from alkali-silica reactivity (ASR). ASR breaks concrete apart due to the force of expansion from alkali silicate gels coming in contact with water. The Department historically has prevented the potential for ASR by not allowing the use of high-alkali cement with reactive aggregates. In the mid-eighties, testing by the Department showed that by replacing 15 to 20% of the high-alkali cement with Class F fly ash, ASR could be mitigated. This is currently allowed by Department specifications for most standard Classes of concrete. In a high-performance concrete, when a high-