



# Iowa Department of Transportation

## MINUTES OF IOWA D.O.T. SPECIFICATION COMMITTEE MEETING

October 11, 2012

<b>Members Present:</b>	Donna Buchwald Eric Johnsen, Secretary Ed Kasper Dan Redmond Tom Reis, Chair Willy Sorensen	Office of Local Systems Specifications Section Office of Contracts District 4 - Materials Specifications Section Office of Traffic & Safety
<b>Members Not Present:</b>	Jim Berger Darwin Bishop Sandra Larson Doug McDonald Gary Novey Brian Smith John Smythe	Office of Materials District 3 - Construction Systems Operations Bureau District 1 - Marshalltown RCE Office of Bridges & Structures Office of Design Office of Construction
<b>Advisory Members Present:</b>	Lisa Rold Paul Wiegand	FHWA SUDAS
<b>Others Present:</b>	Mark Bortle Max Grogg Todd Hanson Daniel Harness Tom Jacobson Melissa Serio	Office of Construction FHWA Office of Materials Office of Design Office of Construction Office of Construction

Tom Reis, Specifications Engineer, opened the meeting. The following items were discussed in accordance with the revised agenda dated October 5, 2012:

**1. Article 1107.08, Public Convenience and Safety.**

The Office of Construction requested to clarify parking of personal vehicles and storage of materials within the right-of-way.

**2. Section 2105, Stripping, Salvaging, and Spreading Topsoil.**

The Office of Construction requested to add specifications for contractor-furnished topsoil and a topsoil depth requirement of 4 inches to comply with the new storm water permit requirements.

**3. Article 2123.02, A, Materials (Earth Shoulders for Pavements and Bases).**

The Office of Design requested to require topsoil for earth shoulders to comply with Iowa DNR NPDES General Permit No. 2.

**4. Article 2210.03, D, 2, Choke Stone Course (Macadam Stone Base).**

The Office of Construction requested to make required water content for compaction of choke stone similar to subbase materials and eliminate the proctor test requirement.

**5. Article 4101.01, General Requirements (Portland Cement).**

The Office of Materials requested to add Type IL cement to the specifications.

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> John Smythe / Mark Bortle		<b>Office:</b> Construction		<b>Item 1</b>	
<b>Submittal Date:</b> 2012.09.19		<b>Proposed Effective Date:</b> April 2013 GS			
<b>Article No.:</b> 1107.08		<b>Other:</b>			
<b>Title:</b> Public Convenience and Safety					
<b>Specification Committee Action:</b> Deferred to the November meeting.					
<b>Deferred:</b> X		<b>Not Approved:</b>		<b>Approved Date:</b>	
<b>Effective Date:</b>					
<b>Specification Committee Approved Text:</b>					
<p><b>Comments:</b> The FHWA objected to this revision without a Department plan to handle ingress and egress from the interstate by private vehicles. The FHWA presented documentation on how some other states are handling parking of private vehicles on Interstate right-of-way. The Specifications or plan needs to define what is acceptable. The Office of Construction will set up a meeting with the FHWA and the Office of Design to develop a procedure for handling this issue on interstate projects.</p>					
<b>Specification Section Recommended Text:</b>					
<b>1107.08, Public Convenience and Safety.</b>					
<p><b>Replace</b> Articles I and J:</p> <p>I. Parking of private vehicles on Interstate right-of-way will not be allowed within 15 feet (5 m) of an open lane of traffic, unless vehicles are parked behind temporary or permanent barriers. Parking of unattended equipment within the median or storage of equipment within 50 feet (15 m) 30 feet (9 m) of the edge of pavement will not be allowed unless equipment is parked behind temporary or permanent barriers.</p> <p>J. Materials stored within the highway right-of-way shall be placed to cause a minimum obstruction to traffic and shall be stored at least 30 feet (9 m) from an open lane of traffic or behind temporary or permanent barriers. Sidewalks, gutters, sewer inlets, and portions of highway adjoining the roadway under construction shall not be obstructed more than is necessary.</p>					
<b>Comments:</b>					
<p><b>Member's Requested Change: (Do not use 'Track Changes', or 'Mark-Up'. Use <b>Strikeout</b> and <b>Highlight</b>.)</b></p> <p><b>1107.08, I AND J PUBLIC CONVENIENCE AND SAFETY.</b></p> <p>I. Parking of private vehicles on Interstate right-of-way will not be allowed within 15 feet (5 m) of an open lane of traffic, unless the vehicles are parked behind temporary or permanent barriers. Parking of unattended equipment within the median or storage of equipment within 30 feet (9 m) 50 feet (15 m) of the edge of pavement will not be allowed unless the equipment is parked behind temporary or permanent barriers. .</p> <p>J. Materials stored within the highway right-of-way shall be placed to cause a minimum obstruction to traffic and shall be stored at least 30 feet (9 m) from an open lane of traffic or behind temporary or permanent barriers. Sidewalks, gutters, sewer inlets, and portions of highway adjoining the roadway under construction shall not be obstructed more than is necessary.</p>					
<p><b>Reason for Revision:</b> To allow for some controlled parking of private vehicles on Interstate projects outside of the work zone clear zone or behind barriers. Bridge projects can be especially troublesome under the current specifications. In addition, a better definition for the location for storage of materials outside of the work zone clear zone or behind barriers is also included in this revision.</p>					
<b>County or City Input Needed (X one)</b>			<b>Yes</b>		<b>No X</b>
<b>Comments:</b>					
<b>Industry Input Needed (X one)</b>			<b>Yes</b>		<b>No X</b>
<b>Industry Notified:</b>		<b>Yes</b>	<b>No X</b>	<b>Industry Concurrence:</b>	
				<b>Yes</b>	<b>No</b>

**Comments:**

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> John Smythe / Melissa Serio	<b>Office:</b> Construction	<b>Item 2</b>
<b>Submittal Date:</b> 2012.09.28	<b>Proposed Effective Date:</b> April 16, 2013	
<b>Section No.:</b> 2105 <b>Title:</b> Stripping, Salvaging, and Spreading Topsoil	<b>Other:</b>	

**Specification Committee Action:** Approved with changes.

<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/11/2012	<b>Effective Date:</b> 4/16/2013
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**Specification Committee Approved Text:** See Specification Section Recommended Text.

**Comments:** The District 4 Materials Office asked if the pH requirement in Article 4170.09, A, would apply and how it would be enforced. The Roadside Development Section indicated that the pH requirement would not be a problem in the vast majority of cases. They were concerned about the cases where the soil pH is off and the soil won't support vegetation growth. The Specifications Section felt that Article 4170.09, A, 1, would protect the Department as it specifies that the topsoil must have "a high degree of fertility". The pH requirement was excluded from Article 2105.02.

**Specification Section Recommended Text:**

**2105, Stripping, Salvaging, and Spreading Topsoil.**

**Replace the Section:**

**2105.01 DESCRIPTION.**

- A. Strip topsoil and prepare sod.
- B. Haul, deposit, and spread topsoil.

**2105.02 MATERIALS.**

~~None.~~ For topsoil furnished by the Contractor, provide material meeting the requirements of Articles 4170.09, A, 1 and 4170.09, A, 3.

**2105.03 CONSTRUCTION.**

**A. Stripping Topsoil.**

~~Remove topsoil from borrows pits, cuts, or areas to be covered by embankments. Prepare sod. Haul, deposit, and spread topsoil on shoulders, slopes, excavated areas, borrow pits, and other designated areas according to the contract documents.~~

**A 1. Sod Preparation.**

Mow, ~~burn,~~ or remove, weeds, grass and growing crops or other herbaceous vegetation close to the ground as directed by the Engineer. Shred sod by shallow plowing or blading and thoroughly disking. Shred sod thoroughly enough to permit the soil to be easily spread in a thin layer over areas to be covered.

**B 2. Topsoil Excavation.**

After existing sod has been prepared, remove the topsoil to the depth specified. If not otherwise specified, the depth shall be 12 inches (0.3 m). The topsoil may be moved directly to an area where it will be used or may be stockpiled for future use.

**C B. Placing Topsoil.**

~~Spread topsoil uniformly over the area to be covered.~~ Haul, deposit, and spread topsoil uniformly on shoulders, slopes, excavated areas, borrows, and other designated areas according to the contract documents to a minimum depth of 4 inches (100 mm) or to the depth specified in the contract documents. Smooth the surface of the topsoil and leave in a finished condition so that it will drain properly.

**2105.04 METHOD OF MEASUREMENT.**

**A. Topsoil Stripped Onsite.**

**A 1.** The number of cubic yards (cubic meters) of topsoil moved will be computed on the basis of a uniform 12 inch (0.3 m) cut, or the depth as specified in the contract documents, over the area involved. Sufficient field measurements will be taken to assure reasonable conformity with the required depth of cut.

**B 2.** Topsoil salvaged from excavated areas and paid for as topsoil will not be included in excavation quantities for which payment is made.

**B. Topsoil Furnished by Contractor or Previously Stockpiled Onsite.**

The number of cubic yards (cubic meters) of topsoil will be computed on the basis of a uniform 8 inch (0.2 m) placement, or the depth as specified in the contract documents, over the area involved. Sufficient field measurements will be taken to assure reasonable conformity with the required depth of placement.

**2105.05 BASIS OF PAYMENT.**

**A.** Payment will be the contract unit price per cubic yard (cubic meter).

**B.** Payment is full compensation for preparing, stripping (if required), transporting, and placing the topsoil according to the contract documents.

**C.** Overhaul will not be paid for this item.

**Comments:**

**Member's Requested Change: (Do not use 'Track Changes', or 'Mark-Up'. Use Strikeout and Highlight.)**

**Replace Section 2105 with the following:**

**Section 2105. Stripping, Salvaging, and Spreading Topsoil**

**2105.01 DESCRIPTION.**

- C.** Strip topsoil and prepare sod.
- D.** Haul, deposit, and spread topsoil.

**2105.02 MATERIALS.**

For topsoil furnished by the Contractor, provide material meeting the requirements of Article 4170.09, A. ~~None.~~

**2105.03 CONSTRUCTION.**

**A. Stripping Topsoil.**

Remove topsoil from borrows pits, cuts, or areas to be covered by embankments. Prepare sod. Haul, deposit, and spread topsoil on shoulders, slopes, excavated areas, borrow pits, and other designated areas according to the contract documents.

**1.A. Sod Preparation.**

Mow, burn, or remove weeds, grass and growing crops or other herbaceous vegetation close to the ground as directed by the Engineer. Shred sod by shallow plowing or blading and thoroughly disking. Shred sod thoroughly enough to permit the soil to be easily spread in a thin layer over areas to be covered.

**2.B. Topsoil Excavation.**

After existing sod has been prepared, remove the topsoil to the depth specified. If not otherwise specified, the depth shall be 12 inches (0.3 m). The topsoil may be moved directly to an area where it will be used or may be stockpiled for future use.

**B.C. Placing Topsoil.**

Haul, deposit, and spread topsoil uniformly on shoulders, slopes, excavated areas, borrows, and other designated areas according to the contract documents to a minimum depth of 4 inches or to the depth defined in the contract documents. ~~Spread topsoil uniformly over the area to be covered.~~ Smooth the surface of the topsoil and leave in a finished condition so that it will drain properly.

**2105.04 METHOD OF MEASUREMENT.**

**A. Topsoil stripped onsite**

**1. A.** The number of cubic yards (cubic meters) of topsoil moved will be computed on the basis of a uniform 12 inch (0.3 m) cut, or the depth as specified in the contract documents, over the area involved. Sufficient field measurements will be taken to assure reasonable conformity with the required depth of cut.

**2.B.** Topsoil salvaged from excavated areas and paid for as topsoil will not be included in excavation quantities for which payment is made.

**B. Topsoil furnished by Contractor or previously stockpiled onsite.**

The number of cubic yards (cubic meters) of topsoil will be computed on the basis of a uniform 8 inch (0.2 m) placement, or the depth as specified in the contract documents, over the area involved. Sufficient field measurements will be taken to assure reasonable conformity with the required depth of placement.

**2105.05 BASIS OF PAYMENT.**

- A. Payment will be the contract unit price per cubic yard (cubic meter).
- B. Payment is full compensation for preparing, stripping (if required), transporting, and placing the topsoil according to the contract documents.
- C. Overhaul will not be paid for this item.

**Reason for Revision:**

- Add Method of Measurement for contractor-furnished topsoil or spreading of previously stockpiled topsoil
- Add material requirements for contractor-furnished topsoil
- Add statement about placing of min. 4 inches of topsoil to be in compliance with new storm water permit

<b>County or City Input Needed (X one)</b>	<b>Yes</b>	<b>No</b> X
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**Comments:** None

<b>Industry Input Needed (X one)</b>	<b>Yes</b>	<b>No</b> X
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<b>Industry Notified:</b>	<b>Yes</b>	<b>No</b>	<b>Industry Concurrence:</b>	<b>Yes</b>	<b>No</b>
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**Comments:** None

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Brian Smith		<b>Office:</b> Design		<b>Item 3</b>	
<b>Submittal Date:</b> 9/28/2012		<b>Proposed Effective Date:</b> 4/16/2013			
<b>Article No.:</b> 2123.02, A <b>Title:</b> Materials		<b>Other:</b>			
<b>Specification Committee Action:</b> Approved as recommended.					
<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/11/2012		<b>Effective Date:</b> 4/16/2013	
<b>Specification Committee Approved Text:</b> See Specification Section Recommended Text.					
<b>Comments:</b> None.					
<b>Specification Section Recommended Text:</b> 2123.02, A. <b>Replace</b> the second sentence of the Article: Do not use unsuitable soils of Article 2102.02, D, 3, or topsoils. Place topsoil as required by Article 2105.03, B.					
<b>Comments:</b>					
<b>Member's Requested Change:</b> (Do not use 'Track Changes', or 'Mark-Up'. Use <b>Strikeout</b> and <b>Highlight</b> .) 2123.02, A, Materials. <b>Replace</b> the second sentence: Do not use unsuitable soils of Article 2102.02, D, 3, or topsoils except topsoil as required by Section 2105.					
<b>Reason for Revision:</b> Changes to Iowa DNR NPDES General Permit No. 2 require 4 inches of topsoil be placed on disturbed areas.					
<b>County or City Input Needed (X one)</b>		<b>Yes</b>		<b>No X</b>	
<b>Comments:</b>					
<b>Industry Input Needed (X one)</b>		<b>Yes</b>		<b>No X</b>	
<b>Industry Notified:</b>	<b>Yes</b>	<b>No X</b>	<b>Industry Concurrence:</b>	<b>Yes</b>	<b>No</b>
<b>Comments:</b>					

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> John Smythe / Melissa Serio		<b>Office:</b> Construction		<b>Item 4</b>	
<b>Submittal Date:</b> September 27, 2012			<b>Proposed Effective Date:</b> April 16, 2013		
<b>Article No.:</b> 2210.03, D, 2 <b>Title:</b> Choke Stone Course			<b>Other:</b>		
<b>Specification Committee Action:</b> Approved as recommended.					
<b>Deferred:</b>		<b>Not Approved:</b>		<b>Approved Date:</b> 10/11/2012	
				<b>Effective Date:</b> 4/16/2012	
<b>Specification Committee Approved Text:</b> See Specification Section Recommended Text.					
<b>Comments:</b> None.					
<b>Specification Section Recommended Text:</b> 2210.03, D, 2. <b>Replace the Article:</b> If the material is prewetted before delivery, or if water is added to the base after delivery, ensure the water is uniformly distributed throughout the material so that all particles are uniformly <del>wet moist</del> . <del>Verify water is within 2.0% of the amount determined as field optimum to produce maximum density together with stability with the field compaction procedure. This moisture content will usually be 85 to 90% of the optimum determined according to Materials Laboratory Test Method No. Iowa 103. Maintain this moisture content in the material until base compaction is complete.</del>					
<b>Comments:</b>					
<b>Member's Requested Change:</b> (Do not use 'Track Changes', or 'Mark-Up'. Use <b>Strikeout</b> and <b>Highlight</b> .)					
D. Choke Stone Course.					
2. If the material is prewetted before delivery, or if water is added to the base after delivery, ensure the water is uniformly distributed throughout the material so that all particles are uniformly moist. <del>wet</del> . <del>Verify water is within 2.0% of the amount determined as field optimum to produce maximum density together with stability with the field compaction procedure. This moisture content will usually be 85 to 90% of the optimum determined according to Materials Laboratory Test Method No. Iowa 103. Maintain this moisture content in the material until base compaction is complete.</del>					
<b>Reason for Revision:</b> Changes to make required water content for compaction of choke stone similar to subbase materials and not require a proctor test to be performed.					
<b>County or City Input Needed (X one)</b>			<b>Yes</b>		<b>No X</b>
<b>Comments:</b>					
<b>Industry Input Needed (X one)</b>			<b>Yes</b>		<b>No X</b>
<b>Industry Notified:</b>		<b>Yes</b>	<b>No</b>	<b>Industry Concurrence:</b>	
				<b>Yes</b>	<b>No</b>
<b>Comments:</b>					



**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Jim Berger		<b>Office:</b> Materials	<b>Item 5</b>
<b>Submittal Date:</b> 2012.09.25		<b>Proposed Effective Date:</b> April 2013	
<b>Article No.:</b> 4101.01 <b>Title:</b> General Requirements (Portland Cement)		<b>Other:</b>	
<b>Specification Committee Action:</b> Approved as recommended.			
<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/11/2012	<b>Effective Date:</b> 4/16/2012
<b>Specification Committee Approved Text:</b> See Specification Section Recommended Text.			
<b>Comments:</b> The Office of Materials explained that IL cement will be used in place of Type I/II cement. The 10% cement replacement will be used in the calculations for maximum cement replacement.			
<b>Specification Section Recommended Text:</b>			
<b>4101.01, B, ASTM C 595 Cements.</b>			
<b>Add the Article:</b>			
5. Meet the requirements of Materials I.M. 401 for initial approval of Type IL cement.			
<b>4101.01, C, Cement Type Usage.</b>			
<b>Replace Articles 2 and 3:</b>			
2. Type IP, <del>or</del> Type IS, or Type IL cement may be furnished at the Contractor's option when Type I or Type II cement is specified. Apply the limitations of the following articles:			
<ul style="list-style-type: none"> <li>• 2301.02, B.</li> <li>• 2403.02, B.</li> <li>• 2407.02.</li> <li>• 2412.02.</li> <li>• 2413.02.</li> <li>• 2424.02.</li> <li>• 2426.02.</li> <li>• 2507.02.</li> <li>• 2513.02.</li> <li>• 2529.02.</li> <li>• 2530.02.</li> <li>• 2539.02.</li> </ul>			
3. Use the same unit volume of Type IP, <del>or</del> Type IS, or Type IL cement in the concrete that is specified for Type I or Type II cement.			
<b>Comments:</b>			
<b>Member's Requested Change (Redline/Strikeout):</b>			
<p><b>4101.01 GENERAL REQUIREMENTS.</b></p> <p><b>A. ASTM C 150 Cements.</b></p> <p>1. Unless specified otherwise, meet the requirements of ASTM C 150.</p>			

<p>2. Limit the alkali content expressed as total equivalent sodium oxide to no more than 0.60% for all cements.</p> <p><b>B. ASTM C 595 Cements.</b> Unless specified otherwise, meet the requirements of ASTM C 595 and the following requirements:</p> <ol style="list-style-type: none"> <li>1. Pozzolan constituent of Type IP cement no more than 25 weight (mass) percent of the Portland-pozzolan cement.</li> <li>2. Slag constituent of Type IS cement no more than 35 weight (mass) percent of the Portland blast-furnace slag cement.</li> <li>3. No Class C fly ash in Type IP cement.</li> <li>4. To produce blended cement, use Portland cement meeting the requirements of <a href="#">Article 4101.01, A</a>, but with the alkali content expressed as a total equivalent being no more than 0.75%.</li> </ol> <p><b>5. Meet the requirements of I.M. 401 for initial approval of Type IL cement.</b></p> <p><b>C. Cement Type Usage.</b> Comply with the following unless specified otherwise:</p> <ol style="list-style-type: none"> <li>1. Type I or Type II cement may be used for pavements, structures, and other applications. Type III cement may be used in precast and prestressed concrete only.</li> <li>2. Type IP, <del>or</del> Type IS, <b>or Type IL</b> cement may be furnished at the Contractor's option when Type I or Type II cement is specified. Apply the limitations of the following articles: <ul style="list-style-type: none"> <li>• <a href="#">2301.02, B.</a></li> <li>• <a href="#">2403.02, B.</a></li> <li>• <a href="#">2407.02.</a></li> <li>• <a href="#">2412.02.</a></li> <li>• <a href="#">2413.02.</a></li> <li>• <a href="#">2424.02.</a></li> <li>• <a href="#">2426.02.</a></li> <li>• <a href="#">2507.02.</a></li> <li>• <a href="#">2513.02.</a></li> <li>• <a href="#">2529.02.</a></li> <li>• <a href="#">2530.02.</a></li> <li>• <a href="#">2539.02.</a></li> </ul> </li> <li>3. Use the same unit volume of Type IP, <del>or</del> Type IS, <b>or Type IL</b> cement in the concrete that is specified for Type I or Type II cement.</li> </ol>
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**Reason for Revision:** Type IL cement was recently added to ASTM C 595. Type IL cement is blended with limestone addition. A Type IL cement will produce concrete similar to that with Type I/II cement. It is considered a green cement due to the reduction of CO<sub>2</sub> per ton of cement clinker output. Typical replacement percentages will be 10-12%.

<b>County or City Input Needed (X one)</b>			<b>Yes</b>	<b>No</b>	
<b>Comments:</b>					
<b>Industry Input Needed (X one)</b>			<b>Yes X</b>	<b>No</b>	
<b>Industry Notified:</b>	<b>Yes X</b>	<b>No</b>	<b>Industry Concurrence:</b>	<b>Yes X</b>	<b>No</b>
<b>Comments:</b>					