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

July 12, 2012

Members Present: Jim Berger Office of Materials

Roger Bierbaum Office of Contracts
Eric Johnsen, Secretary Specifications Section

Doug McDonald District 1 - Marshalltown RCE Gary Novey Office of Bridges & Structures

Dan Redmond District 4 - Materials
Tom Reis, Chair Specifications Section
John Smythe Office of Construction
Willy Sorensen Office of Traffic & Safety

Members Not Present: Darwin Bishop District 3 - Construction

Donna Buchwald Office of Local Systems

Deanna Maifield Office of Design

John Selmer Statewide Operations Bureau

Advisory Members Present: Lisa Rold FHWA

Others Present: John Dostart Office of Local Systems

Daniel Harness Office of Design

Nikita Rainey Office of Employee Services

Tom Reis, Specifications Engineer, opened the meeting. The following items were discussed in accordance with the agenda dated July 6, 2012:

1. Article 1102.09, N, Preparation of Proposals.

The Office of Contracts requested to specify submittal requirements for contractor's questions regarding projects advertised for letting.

2. Article 1102.17, E, 2, Disadvantaged Business Enterprises.

The Office of Contracts requested to require electronic submittal of the DBE form and specify how the DBE list will be distributed.

3. Article 1102.19, E, 5, a, Placement of EEO/AA Notices and Posters.

The Office of Employee Services - Civil Rights requested to revise the list of required EEO/AA notices and posters.

4. Article 2120.03, A, Fuel Adjustment.

The Office of Contracts requested to add language indicating when fuel adjustment applies to a contract.

Article 2123.03, B, 1, Constructing Earth Shoulders.

The Office of Design requested to add instructions for incorporating trimmings into earth shoulder construction.

6. Article 2552.03, E, Pipe Bedding and Backfill Material.

The Office of Design requested to add language on pipe bedding and backfill under Primary roadways to the Standard Specifications and remove it from Tab 104-5B, as well as void Standard Note 263-1.

7. Article 2610.03, C, Pruning.

The Office of Design requested to clarify specification language regarding pruning and eliminate redundancy.

8. Article 2611.03, Construction (Furnish and Install Shrubs and Trees with Warranty).

The Office of Design requested to add pruning requirements to Section 2611.

9. Article 4185.02, B, Anchor Bolts and Slip-Base Fasteners for Lighting Poles.

The Office of Design requested to make clarifications to this Article.

10. DS-12XXX, Adhesive-Bonded Anchors and Dowels for Traffic Railings.

The Office of Bridges and Structures requested approval of Developmental Specifications for Adhesive-Bonded Anchors and Dowels for Traffic Railings.

Additional Item

The Specifications Section discussed the release of the 2012 Standard Specifications, effective with the October 16, 2012 letting. The new book is currently being printed and should be available beginning August 1st from the Iowa DOT warehouse. The order form available on the Specifications Section website will be updated in the near future for external orders. The content of the 2012 Standard Specifications is nearly identical to the content available in the April 2012 Electronic Reference Library. The first General Supplemental Specification (GS-12001) for the 2012 Standard Specifications is currently being mailed out.

Submitted by: Roger Bierbaum	Office: Contracts	Item 1
Submittal Date: May 30, 2012	Proposed Effective Date: April 2013 GS	
Article No.: 1102.09, N	Other:	
Title: Preparation of Proposals		

Specification Committee Action: Approved with changes.

Deferred: Not Approved: Approved Date: 7/12/2012 Effective Date: 4/16/2013

Specification Committee Approved Text:

1102.09. N.

Replace the Article:

If a prospective bidder contractor or supplier, for a proposal for which the Department is accepting bids, is in doubt as to the true meaning of any part of the contract documents, the bidder contractor or supplier may submit to the Contracts Engineer a request for additional information, explanations, or interpretations. The request shall be submitted to the Q&A forum at the letting website used by the Department. Interpretations may be in the form of an addendum to the contract documents. The Contracting Authority will not be responsible for any information, explanation, or interpretation from any other source.

Comments: The Office of Contracts requested to replace "bidder" with "contractor or supplier", since you need not be a bidder to submit a question.

Language discussing when to submit requests or when they would be answered was removed from the specification revision. This language will be included on the letting website used by the Department.

The Office of Construction asked about how a contractor or supplier should respond if they feel their question was not adequately answered. Previously, the Department indicated to the AGC they should call if a question is not adequately answered. The first response should be to post an additional question on the letting website asking for more information or restating the question to try and get the question adequately answered. The Office of Contracts indicated they would not take a call from a contractor or bidder unless it was only to clarify a question previously submitted and then the response would also be posted on the website.

Specification Section Recommended Text:

1102.09, N.

Replace the Article:

If a prospective bidder, for a proposal for which the Department is accepting bids, is in doubt as to the true meaning of any part of the contract documents, the bidder may submit to the Contracts Engineer a request for additional information, explanations, or interpretations. The request shall be submitted to the Q&A forum at the letting website used by the Department. Questions should be submitted as early as possible so answers can be researched and posted. Questions submitted within two business days of the letting will likely not be answered. Interpretations may be in the form of an addendum to the contract documents. The Contracting Authority will not be responsible for any information, explanation, or interpretation from any other source.

Comments: Do we need to include this in the Specifications?

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

N. If a prospective bidder, for a proposal for which the Department is accepting bids, is in doubt as to the true meaning of any part of the contract documents, the bidder may submit to the Contracts Engineer a request for additional information, explanations, or interpretations. The request shall be posted to the Q&A forum at the letting website used by the Department. Questions should be posted as early as possible so answers can be researched and posted. Questions submitted within two

	act docume	ents. The Contra	vered. Interpretations may be acting Authority will not be respay other source.		
Reason for Revision:	Recommer	ndation from the	e Contract Letting Process Kai	zen Review	
County or City Input	Needed (X	one)	Yes	No X	
Comments:					
Industry Input Neede	d (X one)		Yes	No X	
Industry Notified:	Yes	No X	Industry Concurrence:	Yes	No X
Comments:		- 1	•	•	

	SPECIFI	CATION REVIS	SION SUBMITTAL FOR	RM			
Submitted by:	Roger Bierbaum		Office: Contracts Item				
Submittal Date:	Submittal Date: June 5, 2012			Proposed Effective Date: April 2013 GS			
Article No.: 1102.17, E, 2			Other:				
Title: Disadva	ntaged Business En	terprises					
Specification C	ommittee Action: /	Approved as rec	commended.				
Deferred:	Not Approved:	Approved	Date: 7/12/2012	Effective Date: 4/	16/2013		
Specification C	ommittee Approve	d Text: See Spe	ecification Section Reco	mmended Text.			
Comments: No	one.						
Replace the The combidding cause the listed in may be Comments: Member's Required Make the following the distance of the listed in may be comments:	e Article: Inpleted form shall be documents. Failure the bid to be rejected the Directory electroused. I sested Change: (Doing changes to 1102.) The completed form sholding documents. Facause the bid to be rejlisted in the Directory of may be used.	filled out in ink or attach this cor as irregular, in a nic DBE.BIN file not use 'Track C 17 E,2 nall be filled out in illure to attach this ected as irregular electronic DBE.BII	or be computer general mpleted form or submitted accordance with Article esupplied by the Department of the Changes', or 'Mark-Up'. Unliked the computer general completed form or submedia, in accordance with Article of the Supplied by the Department of the Change of t	ting incomplete form 1102.10. Only DBE tment for the curren Jse Strikeout and High arted and submitted withing incomplete forms e 1102.10. Only DBE to artment for the current	ghlight.) ith the s will firms		
	· · · · · · · · · · · · · · · · · · ·		ger being distributed to				
, ,	Input Needed (X or	ne)	Yes	No X			
Comments:		Т					
Industry Input I	Needed (X one)		Yes	No X			
Industry Notifie	ed: Yes	No X	Industry Concurrence	e: Yes	No		
Comments:							

Submitted by: Tom Reis / Nikita Rainey	Office: Specifications / OES – Civil Rights	Item 3
Submittal Date: June 29, 2012	Proposed Effective Date: August 9, 201	12
Article No.: 1102.19, E, 5, a	Other:	
Title: Placement of EEO/AA Notices and Posters		

Specification Committee Action: Approved with changes.

Deferred: Not Approved: Approved Date: 7/12/2012 Effective Date: 4/16/2013

Specification Committee Approved Text:

1102.19, E, 5, a.

Replace Article 4:

4) Form FHWA-1495, regarding wage rate information for a Federal-aid highway project, required only if Davis/Bacon predetermined wage rates apply to the project. Form WH-1321, Employee Rights Under the Davis-Bacon Act.

Replace Article 9:

9) Form FHWA-1495A (Spanish version of form FHWA-1495), stating "Informacion Sobre Escalas De Salarios Proyecto De Carretera Con Ayuda Federal", required only if Davis/Bacon predetermined wage rates apply to the project.* WH-1321 SPA (Spanish version of Form WH-1321) stating "DERECHOS DEL EMPLEADO BAJO LA LEY DAVIS-BACON" recommended only if Davis/Bacon predetermined wage rates apply to the project.*

Comments: OES - Civil Rights discovered that a Spanish version of WH-1321 existed, so that document was referenced instead of WH-1420.

Specification Section Recommended Text:

1102.19, E, 5, a.

Replace Article 4:

4) Form FHWA-1495, regarding wage rate information for a Federal-aid highway project, required only if Davis/Bacon predetermined wage rates apply to the project. Form WH-1321, Employee Rights Under the Davis-Bacon Act.

Replace Article 9:

9) Form FHWA-1495A (Spanish version of form FHWA-1495), stating "Informacion Sobre Escalas De Salarios Proyecto De Carretera Con Ayuda Federal", required only if Davis/Bacon predetermined wage rates apply to the project.* WH-1420 Your Rights Under the FMLA Act of 1993 (Spanish version).*

Comments:

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

Replace the following text:

- 5. Placement of EEO/AA Notices and Posters.
 - The Contractor shall place the following notices and posters on a bulletin board at the project site in areas readily accessible to employees and potential employees.
 - 4) Form FHWA-1495, regarding wage rate information for a Federal-aid highway project, required only if Davis/Bacon predetermined wage rates apply to the project.

Form WH-1321 Employee Rights Under the Davis-Bacon Act

Delete the following text:

- 9) Form FHWA-1495A (Spanish version of form FHWA-1495), stating "Informacion Sobre Escalas De Salarios Proyecto De Carretera Con Ayuda Federal", required only if Davis/Bacon predetermined wage rates apply to the project.*
- **9 10)** Form EEOC-P/S-1 (Spanish version of form EEOC-P/E-1), stating "La Igualdad de Oportunidades De Empleo Es LA LEY".*

Add the following text:

10) WH-1420 Your Rights Under the FMLA Act of 1993 (Spanish version)*

Reason for Revision: FHWA-1273 Revised per June 25, 2012 final Federal Register Notice. The June 25, 2012 final notice requires federal-aid recipients to incorporate the revised FHWA-1273 no later than 45 days from the publication date or August 9, 2012.

County or City Input Needed (X one)		Yes	No x		
Comments:					
Industry Input Need	ed (X one)		Yes	No x	
Industry Notified:	Yes	No	Industry Concurrence:	Yes	No
Comments:			-		

Important





Wage Rate Information Federal, Aid Highway Project

Construction work on this project is subject to the minimum wage rate provisions of Section 113, Title 23, United States Code and the overtime wage provisions of the Contract Work Hours and Safety Standards Act.

As an employee of the contractor or a subcontractor, you are entitled to be paid not less than the hourly rate for the particular classification of work performed as set forth in the schedule affixed below.

The schedule affixed below contains no minimum wage rates for the following employees:

- 1. Apprentices properly registered under approved Federal or State apprenticeship programs. Each approved program contains the applicable rates.
- 2. Persons employed pursuant to apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting equal employment opportunity in connection with Federal-aid highway construction programs. Programs thus certified will set forth the rates applicable.

Call any failure to receive the required rates to the attention of the representative of the contracting agency shown below or the nearest representative of the Federal Highway Administration.

(State highway department representative)

ROGER E. BIERBAUM 515-239-1414 AMES, IOWA 50010

Additional information may be obtained from the Federal Highway Administration, Washington, D.C. 20590.

Any communication should list the name, location, and type of project, the name of the contractor and his address, your -name and address, and a statement of what you do, what rate you are paid, and what rate you think you should be paid.

(Attach Secretary of Labor minimum wage rate schedule)

Form FHWA-1495 PREVIOUS EDITIONS ARE OBSOLETE

01/29/10 Appendix 2-7A

EMPLOYEE RIGHTS UNDER THE DAVIS-BACON ACT

FOR LABORERS AND MECHANICS EMPLOYED ON FEDERAL OR FEDERALLY **ASSISTED CONSTRUCTION PROJECTS**

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION.

PREVAILING WAGES

You must be paid not less than the wage rate listed in the Davis-Bacon Wage Decision posted with this Notice for the work you perform.

OVERTIME

You must be paid not less than one and one-half times your basic rate of pay for all hours worked over 40 in a work week. There are few exceptions.

ENFORCEMENT

Contract payments can be withheld to ensure workers receive wages and overtime pay due, and liquidated damages may apply if overtime pay requirements are not met. Davis-Bacon contract clauses allow contract termination and debarment of contractors from future federal contracts for up to three years. A contractor who falsifies certified payroll records or induces wage kickbacks may be subject to civil or criminal prosecution, fines and/or imprisonment.

APPRENTICES

Apprentice rates apply only to apprentices properly registered under approved Federal or State apprenticeship programs.

PROPER PAY

If you do not receive proper pay, or require further information on the applicable wages, contact the Contracting Officer listed below:

or contact the U.S. Department of Labor's Wage and Hour Division.



For additional information:

I-866-4-USWAGE



WWW.WAGEHOUR.DOL.GOV

	SPECIFI	CATION REVI	SION SUBMITTAL FOR	RM					
Submitted by: Roger Bierbaum Office: Contracts				Item 4					
Submittal Date: Jun	Submittal Date: June 5, 2012			Date: A	April 2013 G	S			
Article No.: 2120.03	, A		Other:						
Title: Fuel Adjustm	ent								
Specification Comm	ittee Action: [Deferred until th	ne August meeting.						
Deferred: X Not	Approved:	Approved	d Date:	Effecti	ive Date:				
Specification Comm	ittee Approved	l Text:	•						
specifications will nee	d to address ho know what qua actor, to a credit	ow to handle whantity to put on to the Contract	ald be handled by the Offi nen the bid item is not or the plans since this item cting Authority.	n the co	ntract. Also				
2120.03, A. Replace the Artic Applied as the documents the Backfill, Tops	le: e work is done, e sum of the co	according to th	is specification when inc r Class 10, 12, and 13 E quantities on the contrac	xcavatio	on, Selected				
Comments:									
Member's Requested Change: (Do not use 'Track Changes', or 'Mark-Up'. Use Strikeout and Highlight.) 2120.03 APPLICATION. A. Applied as the work is done, according to this specification when indicated in the contract documents the sum of the contract items for Class 10, 12, and 13 Excavation, Selected Backfill, Topsoil and Embankment-in-Place quantities on the contract exceed 50,000 cubic yards (40,000 cubic Meters). Reason for Revision: Applying Kaizen recommendation for the Office of Contracts to remove "checker" programs to add bid items									
		ie)	Yes	P	No X				
Comments:		,			County or City Input Needed (X one) Yes No X				
Comments:									
Industry Input Need	ed (X one)		Yes	1	No X				

Comments:

Submitted by: Deanna Maifield	Office: Design	Item 5
Submittal Date: 2012.07.02	Proposed Effective Date: 4/16/2013	
Article No.: 2123.03, B, 1 Title: Constructing Earth Shoulders	Other:	

Specification Committee Action: Deferred until the August meeting.

Deferred: X Not Approved: Approved Date: Effective Date:

Specification Committee Approved Text:

Comments: The Office of Construction asked if the reference to topsoil contradicts the language in Article 2123.02, which specifically bars the use of topsoil for earth shoulders. The Office of Contracts felt that using topsoil for shoulders was not a good use of lowa's natural resources. The Office of Construction indicated that the Office of Maintenance would like topsoil in order to establish vegetation. The Office of Local Systems felt that lack of vegetation could violate the lowa DNR's requirements for re-establishing vegetation. The Office of Design will review further changes to the earth shoulder construction specifications and bring this item back for the August meeting.

Specification Section Recommended Text:

2123.03, B, 1.

Add the Article:

c. Placing material from subgrade trimming operations and completing construction with topsoil.

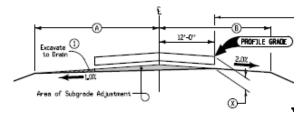
Comments:

Member's Requested Change: (Do not use '<u>Track Changes'</u>, or '<u>Mark-Up'</u>. Use Strikeout and Highlight.) 2123.03, B, 1, c, Constructing Earth Shoulders.

Add as a new article:

c. Placing material resulting from subgrade trimming operations and completing construction with topsoil.

Reason for Revision: On divided four-lane projects that involve grading one year and paving the next, the subgrade is graded to a 2%-2% top the first year then trimmed to a 1%-2% top before paving. The Office of Design would like to add instructions for incorporating trimmings into earth shoulder construction.



County or City Input Needed (X one)			Yes	No	
Comments:			·		
Industry Input Need	ed (X one)		Yes	No	
Industry Notified:	Yes	No	Industry Concurrence:	Yes	No
Comments:		•	•		

Submittal Date: 2012.07.02 Proposed Effective Date: 4/16/2013 Article No.: 2552.03, E, 6 Other:	Submitted by: Deanna Maifield	Office: Design	Item 6
Article No.: 2552.03, E, 6 Other:	Submittal Date: 2012.07.02	Proposed Effective Date: 4/16/2013	
	Article No.: 2552.03, E, 6	Other:	
Title: Bedding and Backfill under Primary Roads	Title: Bedding and Backfill under Primary Roads		

Specification Committee Action: Deferred until the August meeting.

Deferred: X Not Approved: Approved Date: Effective Date:

Specification Committee Approved Text:

Comments: The District 4 Office asked if we should be referencing the new Section 4118, Pipe Bedding Material. Section 4118 would only be for the bedding and not the backfill.

The District 4 Office pointed out that Article 4120.04 is for Class A crushed stone. Article 4120.03 should be applied for gravels.

The District 4 Office questioned requiring 100% crushed gravel. Uncrushed gravel is a better bedding material. This language will be removed from the specification.

The Office of Design asked to apply this language to Section 2435.03.

The Specifications Section asked if Interstate roads should be referenced in this Article. For clarity purposes, Interstate roads will be added.

The Office of Design will make changes to the revision and submit the request again for the August meeting.

Specification Section Recommended Text:

2552.03, E, Pipe Bedding and Backfill Material.

Add the Article:

6. Bedding and Backfill under Primary Roads.

For bedding and backfill purposes under Primary roads, use crushed rock or crushed gravel material complying with Article 4120.04 for bedding and backfill. Place and compact according to Article 2435.03, A, and Article 2552.03, E (Class 1 materials). Use gravel that is 100% crushed, produced by crushing material retained on a 1.5 inch (37.5 mm) or larger screen.

Comments:

Member's Requested Change: (Do not use '<u>Track Changes'</u>, or '<u>Mark-Up'</u>. Use Strikeout and Highlight.) 2552.03, E, 6, Bedding and Backfill under Primary Roads.

Add as a new article:

6. Bedding and Backfill under Primary Roads.

For bedding and backfill purposes under Primary roads, use crushed rock or crushed gravel material complying with Article 4120.04 for all bedding and backfill. Place and compact the material according to Article 2435.03, A and Article 2552.03, E (Class 1 materials). Use gravel that is 100% crushed produced by crushing material retained on a 1.5 inch (37.5 mm) or larger screen.

Reason for Revision: Currently, this language appears in Standard Note 263-1 (used with sanitary sewer, watermain, and appurtenances) and in Tab 104-5B (tabulation of storm sewer). Since this is the standard procedure, the Office of Design would like to add this to the Standard Specifications and remove it from Tab 104-5B, as well as void Standard Note 263-1.

County or City Input Needed (X one)	Yes	No
Comments:		

Industry Input Needed (X one)		Yes	No		
Industry Notified:	Yes	No	Industry Concurrence:	Yes	No
Comments:					

Submitted by: Deanna Maifield	Office: Design	Item 7	
Submittal Date: 2012.07.02	Proposed Effective Date: 4/16/2013		
Article No.: 2610.03, C	Other:		
Title: Pruning			

Specification Committee Action: Approved as recommended.

Deferred: Not Approved: Approved Date: 7/12/2012 Effective Date: 4/16/2013

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

2610.03, C, Pruning.

Replace the article:

C. Pruning.

1. General.

- a. Complete Prune pruning prior to wrapping throughout establishment period.
- b. Perform all pruning to retain the natural shape of the plant. Unless removing dead or damaged material, do not top plants. Prune back dead, broken, and damaged branches to the closest outward growing bud on healthy sound wood. Remove rubbing branches and suckers. Remove all suckers and stubs. Remove all debris resulting from pruning from the right-of-way according to Article 1104.08.

2. Deciduous Trees.

- a. Remove all broken, damaged, or otherwise defective branches, as well as all branches which may not develop properly. In addition, eliminate narrow crotches or competing leaders.
- **b.** Prune trees to develop an upright leader which will best promote the symmetry of the tree. Prune flowering or specimen trees to develop their natural form.

3. Evergreen Trees and Shrubs.

Remove dead and broken branches.

4. Deciduous Shrubs.

Remove dead or irregular branches.

5. Vines and Ground Cover.

Remove broken, damaged, or dead portions from vines and ground cover plants.

Comments:

Member's Requested Change: (Do not use '<u>Track Changes'</u>, or '<u>Mark-Up'</u>. Use Strikeout and Highlight.) 2610.03, C, Pruning.

Replace the article:

C. Pruning.

1. General.

- a. Complete Perform pruning prior to wrapping throughout the establishment period.
- **b.** Perform all pruning to retain the natural shape of the plant. Unless removing dead or damaged material, do not top plants. Prune back dead, broken, and damaged

branches to the closest outward growing bud on healthy sound wood. Remove rubbing branches and suckers. Remove all suckers and stubs. Remove all debris resulting from pruning from the right-of-way according to Article 1104.08.

2. Deciduous Trees.

- **a.** Remove all broken, damaged, or otherwise defective branches, as well as all branches which may not develop properly. In addition, eliminate narrow crotches or competing leaders.
- **b.** Prune trees to develop an upright leader which will best promote the symmetry of the tree. Prune flowering or specimen trees to develop their natural form.

3. Evergreen Trees and Shrubs.

Remove dead and broken branches.

4. Deciduous Shrubs.

Remove dead or irregular branches.

5. Vines and Ground Cover.

Remove broken, damaged, or dead portions from vines and ground cover plants.

Reason for Revision: The Roadside Development Section has asked these changes be made to clean up the language and eliminate redundancy.

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

SPECIFICATION REVISION SUBMITTAL FORM						
Submitted by: Deanna Maifield			Office: Design Item			
Submittal Date: 2012.07.03			Proposed Effective Date: 4/16/2013			
Article No.: 2611.03, H Other:						
Title: Pruning	l					
Specification (Commi	ttee Action: A	Approved as rec	ommended.		
Deferred:	Not A	Approved:	Approved	d Date: 7/12/2012 Effective Date: 4/16/2013		
Specification (Commi	ttee Approve	d Text: See Spe	ecification Section Reco	mmended Text.	
Comments: N	one.					
Specification Section Recommended Text: 2611.03, Construction. Add the Article: H. Pruning. Prune according to Article 2610.03, C. Comments: Member's Requested Change: (Do not use 'Track Changes', or 'Mark-Up'. Use Strikeout and Highlight.) 2611.03, H, Pruning. Add as a new article: H. Pruning. Prune plants according to Article 2610.03, C.						
Reason for Revision: The Roadside Development Section has asked these changes be made to include pruning in Section 2611.						
County or City Input Needed (X one)			Yes	No	No	
Comments:						
Industry Input Needed (X one)			Yes	No	No	
Industry Notifi	ed:	Yes	No	Industry Concurrence	: Yes	No
Comments:						

Submitted by: Deanna Maifield	Office: Design	Item 9	
Submittal Date: 2012.07.02	Proposed Effective Date: 4/16/2013		
Article No.: 4185.02, B	Other:		
Title: Anchor Bolts and Slip-Base Fasteners for Lighting Poles			

Specification Committee Action: Approved with changes.

Deferred: Not Approved: Approved Date: 7/12/2012 Effective Date: 4/16/2013

Specification Committee Approved Text:

4185.02, B, 4.

Replace the Article:

If slip bases are furnished, furnish 1 inch by 4 1/2 inch (25 mm by 112 mm) bolts slip base plate that:

- Are high-strength bolts meeting the requirements of ASTM A 325, and
- Are fully mechanically galvanized to ASTM B 695, Class 50, Type 1.

4185.02, B, 6.

Replace the third bullet:

Are galvanized according to the requirements of ASTM A 153, Class C F 2329, or ASTM B 695, Class 50, Type 1.

Comments: The Office of Materials noted that ASTM A 153, Class C no longer applies and this reference should be ASTM F 2329.

Specification Section Recommended Text:

4185.02, B, 4.

Replace the Article:

If slip bases are furnished, furnish 1 inch by 4 1/2 inch (25 mm by 112 mm) bolts slip base plate that:

- Are high-strength bolts meeting the requirements of ASTM A 325, and
- Are fully mechanically galvanized to ASTM B 695, Class 50, Type 1.

4185.02, B, 6.

Replace the third bullet:

• Are galvanized according to the requirements of ASTM A 153, Class C, or ASTM B 695, Class 50, Type 1.

Comments:

Member's Requested Change: (Do not use '<u>Track Changes'</u>, or '<u>Mark-Up'</u>. Use <u>Strikeout</u> and <u>Highlight</u>.) 4185.02, B, Anchor Bolts and Fasteners for Lighting Poles.

Replace the first sentence in Article 4:

If slip bases are furnished, furnish 1 inch by 4 1/2 inch (25 mm by 112 mm) bolts slip base plate that:

Replace the third bullet in Article 6:

 Are galvanized according to the requirements of ASTM A 153, Class C, or ASTM B 695, Class 50, Type 1.

Reason for Revision: Article 4: proposed deleted text should have been deleted when the 2009 book was published. Article 6: specifying Type 1 for ASTM B 695, Class C indicates there is no time

requirement to failure. Since ASTM A 153 does not list time requirements to failure, the Office of Design is requesting the proposed language be added.							
County or City Input Needed (X one) Yes No							
Comments:							
Industry Input Neede	ed (X one)		Yes	No			
Industry Notified:	Yes	No	Industry Concurrence:	Yes	No		
Comments:	•	<u> </u>	•	•	•		

Submitted by: Gary Novey			Office: Bridges and Structures Item 10					
Submittal Date: June 1, 2012			Proposed Effective Date: 10/16/2012					
Article No.: Title:			Other: Developmental Specifications for Adhesive-Bonded Anchors and Dowels for Traffic Railings					
Specification Co	ommit	tee Action	ı: Appro	oved with ch	nanges.			
Deferred:	Not A	Approved:		Approved	Date: 7/12/2012	Effective Date: 10/16/2012		
Specification Co Dowels for Traffic			ved Tex	t: See atta	ched Draft DS for Adh	esive-Bonded	Anchors and	
Comments: The clearly define the					equested to revise Artic	cle DS-12XXX.	02, A to more	
The Office of Contracts and the FHWA asked about use on an existing bridge. The Office of Bridges and Structures indicated that the intent was not to use this on an existing bridge, but on a new slip form concrete barrier rail.								
Gary Novey will b								
Specification Se and Dowels for T			ended T	ext: See at	ttached Draft DS for A	dhesive-Bonde	d Anchors	
Comments:								
Member's Requested Change: (Do not use 'Track Changes', or 'Mark-Up'. Use Strikeout and Highlight.) See attached								
Reason for Revision: New DS								
County or City Input Needed (X one)			Yes	No X	No X			
Comments:								
Industry Input Needed (X one)			Yes	No X	No X			
Industry Notified	d:	Yes	No)	Industry Concurrence: Yes			
Comments:	•		•	_		<u> </u>		

DRAFT DS-12XXX (New)



DEVELOPMENTAL SPECIFICATIONS FOR ADHESIVE-BONDED ANCHORS AND DOWELS FOR TRAFFIC RAILINGS

Effective Date October 16, 2012

THE STANDARD SPECIFICATIONS, SERIES 2012, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

12XXX.01 DESCRIPTION.

- **A.** Prepare and install adhesive-bonded anchors and dowels in hardened concrete as indicated in the plans, as directed by the Engineer, and in accordance with manufacturer's instructions and these specifications.
- **B.** Anchors and dowels, as described in these specifications, are for use in structural applications where designated on the plans.

12XXX.02 MATERIALS.

- **A.** For applications involving installation of structural steel traffic railing dowels and anchors to concrete barrier, use only adhesive bonding material systems meeting the requirements of Materials I.M. 491.11 and are included in the approved products listed in Appendix E of that document.
- **B.** Store materials delivered to jobsite in original unopened containers and within an appropriate facility capable of maintaining storage conditions consistent with manufacturer's recommendations.
- **C.** Prior to commencing construction, provide the Engineer complete documentation of adhesive bonding material system manufacturer's requirements and recommendations.

12XXX.03 CONSTRUCTION.

Ensure equipment used to install adhesive-bonded anchors or dowels is in conformance with recommendations of adhesive manufacturer.

A. Preparation of Concrete Members.

1. Ensure concrete members receiving adhesive-bonded anchors or dowels are structurally sound and free of cracks in the vicinity of the anchor or dowel to be installed. Immediately inform the Engineer of unsound concrete conditions prior to beginning installation. Unless other equipment is recommended by adhesive manufacturer, drill holes using a rotary hammer drill and bit. Drill holes to diameter required by manufacturer, but as a minimum, not

less than 105% of diameter of anchor or dowel including deformations, nor more than 150% of nominal diameter of anchor or dowel.

- 2. Use a metal detector specifically designed for locating steel reinforcement in concrete to avoid conflicts with existing steel reinforcement whenever placement tolerances and edge clearances permit. Perform core drilling to clear existing steel reinforcement only when approved by the Engineer. Thoroughly dry drilled holes prior to cleaning and installing anchors or dowels.
- 3. Clean and prepare drilled holes in accordance with manufacturer's recommendations, but as a minimum use oil-free compressed air to remove loose particles from drilling, brush inside surface to free loose particles trapped in pores, then use compressed air again to remove remaining loose particles. Use a non-metallic bristle brush and avoid over-brushing to prevent polishing the inside surface of drilled holes.

B. Installing Anchors or Dowels.

- Remove debris, oils, and other deleterious material from anchors or dowels to avoid contamination of adhesive bonding material. Install anchors or dowels in accordance with details shown on the plans and with the adhesive manufacturer's instructions, with particular attention to requirements and/or limitations due to anchor position, dampness, ambient temperature, and curing.
- 2. Use adequate quantities of adhesive bonding material to fill drilled holes to within 1/4 inch (6 mm) of the concrete surface measured after placement of anchor or dowel. For horizontal and inclined installations, provide temporary supports to maintain anchors or dowels in the center of drilled holes until adhesive bonding material has cured.

C. Testing of Anchors or Dowels.

- 1. Field test installed anchors or dowels for traffic railing barrier applications using adhesive bonding material systems. The Engineer or the Contract Documents may also require testing of installed anchors and dowels for other applications.
- 2. Allow a minimum of 3 days between anchor or dowel installation and commencement of testing.
- 3. Provide an independent testing agency to perform field testing of installed anchors or dowels under the direction of a Professional Engineer licensed in the State of Iowa. Field test anchors or dowels in accordance with ASTM E 488. Submit test reports for each lot signed and sealed by the Professional Engineer. Perform restrained static tension tests to prevent damage to surrounding concrete. A restrained test is defined as a test conducted in accordance with ASTM E 488 except that the test equipment support clearance requirements of ASTM E 488 do not apply. The reaction base of the static tension testing apparatus shall be approximately equal to the drilled hole diameter for the anchor to prevent concrete or masonry failure, but allow bond failure. Anchor displacement measurement for field testing is not required. Test individual anchors or dowels by proof loading to 85% of bond strength specified in the plans, based on the nominal anchor or dowel diameter and embedment depth, but not more than 90% of yield strength of anchor or dowel, unless otherwise shown in the Contract Documents.
- **4.** Divide anchors or dowels into lots for testing and acceptance. Each lot shall contain a maximum of one hundred anchors or dowels of same diameter, embedment length and adhesive bonding material system. Randomly select four anchors or dowels from each lot for testing, except if there are three or less in the lot, in which case test all, unless otherwise

directed by the Engineer. If three consecutive lots have no failing tests, sample the next three lots at a 2% rate and if these lots have no failing tests, sample at a rate of 1% for remaining lots unless there is a failure; however, regardless of lot size, sample at least one dowel per lot. For every failed field test, perform two additional field tests on adjacent untested anchors or dowels within the lot. Continue additional field tests until no more test failures occur, or all anchors or dowels within the lot are tested. For the next lot after a failed lot, the sampling rate shall be 4%, but not less than one dowel per lot and conform to sampling rate procedure above including rate reductions as appropriate.

D. Removal and Replacement of Failed Test Specimens.

Remove anchors or dowels that fail field test, without damaging surrounding concrete. Re-drill holes to remove adhesive bonding material residue and clean in accordance with Article 12XXX.03, A. Following re-drilling, prepared holes shall be in conformance with manufacturer's requirements and these specifications. Reinstall new anchors or dowels in accordance with Article 12XXX.03, B. Do not reuse failed anchors or dowels unless approved by the Engineer. Assign reinstalled anchors into new lots containing only reinstalled anchors or dowels of same diameter, embedment length, and adhesive bonding system; and field test in accordance with Article 12XXX.03, C.

E. Acceptance.

The Engineer will base acceptance of adhesive-bonded anchors or dowels on the determination that the material requirements of the Contract Documents, installation and testing requirements of these specifications, and placement requirements of the plans have been met.

12XXX.04 METHOD OF MEASUREMENT.

None.

12XXX.05 BASIS OF PAYMENT.

Work will be considered incidental to the bid item Structural Steel Rail, Traffic.