Iowa Department of Transportation

MINUTES
OF
IOWA DOT SPECIFICATION COMMITTEE MEETING

March 9, 2006

Members Present:	Tom Reis, Chair	Specifications Section
	Daniel Harness, Secretary	Specifications Section
	Keith Norris	District 2-District Materials Engineer
	Bruce Kuehl	District 6-District Const. Engineer
	Gary Novey	Office of Bridges & Structures
	Jim Berger	Office of Materials
	Doug McDonald	District 1-Marshalltown RCE Office
Members Not Present:	John Adam	Statewide Operations Bureau
	John Smythe	Office of Construction
	Roger Bierbaum	Office of Contracts
	Mike Kennerly	Office of Design
	Larry Jesse	Office of Local Systems
	Troy Jerman	Office of Traffic & Safety
Advisory Members Present:	Lisa Rold	FHWA
Advisory Members Not Present:	Jim Rost	Office of Location & Environment
	Larry Stevens	SUDAS
Others Present:	Ed Kasper	Office of Contracts
	Deanna Maifield	Office of Design
	Kevin Merryman	Office of Construction
	Tom Jacobson	Office of Construction
	Mark Bortle	Office of Construction
	LeRoy Bergman	Office of Local Systems
	Lee Honeycutt	Iowa State University English Dept.
	Rebecca Burnett	Iowa State University English Dept.

Tom Reis, Specifications Engineer, opened the meeting. He introduced Lee Honeycutt and Rebecca Burnett from Iowa State University. They are working with Geoffrey Sauer (who was unable to attend) to develop a content management system (CMS) for the Iowa DOT. They attended the meeting as part of their investigation into the process for revising the Standard Specifications. After the introductions, the following items were discussed in accordance with the agenda dated March 2, 2006. Items 1, 2, and 4 were not ready for discussion, and so were withdrawn:

1. Article 1102.01, B, Competency and Qualification of Bidders.

The Office of Contracts requests several changes to Article 1102.01 that will raise the threshold for a CPA Reviewed Statement from $600,000 to $1,000,000.

2. Article 1102.09, Preparation Of Proposals.

The Office of Contracts requests a change to Article 1102.09 that will increase the threshold when an electronic bid is required from $600,000 to $1,000,000.

3. Article 2111.06, Construction Of Granular Subbase.

The Office of Design requests a change to Article 2111.06 that will no longer allow the replacement of 2" (50 mm) of subbase with screened fines thus potentially improving the stability of the paving platform and removing a potential cause for the formation of Tufa on subdrain outlets.

4. 2212.05, Limitation of Operations (Base Repair)

2307.04, Basis of Payment (Bituminous Seal Coat)

2308.11, Bituminous Fog Seal (Shoulders)

2529.12, limitation of Operations (Full Depth Finish Patches)

2530.06, Limitation of Operations (Partial Depth Finish Patches)

2539.06, Limitation of Operations (Concrete Pavement Undersealing by Pressure Grouting)

2541.05, Limitations (Crack and Joint Cleaning and Sealing (HMA Surfaces))

2542.05, Traffic Control (Crack and Joint Cleaning and Sealing (PCC Pavement))

2543.05, Limitations of Operations (Transverse Joint Repair for HMA Pavements)

The Office of Construction requests a numerous changes to clean up remaining references to the SLOW-SLOW flagger changes made with the April 2006 General Supplemental Specification.

5. Article 2214.05, Limitations (Pavement Scarification).

The Office of Construction requests a change to Article 2214.05 that will clarify the intent of the specifications in regard to when the overlay operations shall begin following scarification.

6. Article. 2301.04, C, Entrained Air Content (PCC Pavement).

The Office of Materials requests a change to Article 2301.04 that will clarify the intent of the specifications for paving operations using central batch plant versus ready mix plant.

7. Article 2301.13, D, Mixing of Materials (PPC Pavement).

The Office of Construction requests a change to Article 2301.13 that will clarify the intent of the specifications for concrete mixtures produced from multiple plants.

8. Article 2301.34, A, Portland Cement Concrete Pavement (Method of Measurement).

The Office of Materials requests a change to Article 2301.34 that will align the specifications with the current FHWA requirements for sampling of cores for quality assurance.

9. Section 2310 Portland Cement Concrete Overlay

The Office of Construction requests several changes to Section 2310 that will clarify material requirements, Method of Measurement, Basis of Payment, and final cleaning of the pavement prior to overlay.

10. Article 2424.02, D, Coarse Aggregate for Concrete.

The Office Materials requests a change to Article 2424.02 that clarifies the intent of the gradation for coarse aggregate.

11. Article 2513.03, B. Cast-in-Place and Slip Form.

The Office of Materials requests a change Article 2513.03 that clarifies the class of concrete to be used for barrier rail.

12. Article 2517.02, A, PCC Paving Projects.

The Office Materials requests a change to Article 2517.02 that clarifies the mix type for header slabs.

13. Section 2524.12, F, Delineators, Milepost Markers, and 6 Inch by 6 Inch (150 mm By 150 mm) Route Markers.

The District 6 Construction Engineer requests a change to Article 2524.12 that will clarify how unexpected rock excavation is measured for highway signing footings.

14. Article 2528.02, Signs.

The Office of Construction requests a change to Article 2528.02 that will increase the post requirements from 2 pounds per foot to 3 pounds for U-Channel sign posts.

15. Section 2544, Cleaning and Filing Cracks for HMA Surfaces.

The Office of Contracts requests the Specification Committee to review the limitations on contract periods for Cleaning and Filling of Cracks in order to obtain uniformity across the state.

16. Section 4108.01, Description.

The Office of The Office of Materials requests a change to Article 4108.01 to allow the lignite coal Class C fly ash source to be utilized when Class F is required.

17. Section 4115, Coarse Aggregate for Concrete.

The Office of Materials requests a several changes to Section 4115 that will add missing work types to Table 4115.04.

18. Section 4145.06, F, Lift Holes (Concrete Culvert Pipe).

The Office of Materials requests a change to Article 4145.06 that will allow the fabricator of concrete culvert pipe to cut reinforcing wire at the lift hole helping with the safe handling of the pipe.

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Roger Bierbaum	**Office:** Contracts	**Item 1**
Submittal Date: December 23, 2005	**Proposed Effective Date:** October 2006 GS	
Article No.: 1102.01, B **Title:** Competency and Qualification of Bidders	**Other:**	

Specification Committee Action: Withdrawn.

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

Specification Committee Approved Text: Item withdrawn.

Comments: Item not ready for discussion.

Specification Section Recommended Text:

1102.01, B, CPA Reviewed Statement.

Replace $600,000 with $1,000,000 in the second and third sentences of the second paragraph.

When a CPA Reviewed Statement is submitted to the Department, an experience factor (F) ranging from 0.0 to 10.0, depending on the prospective bidder's past performance with projects let by the Department, will be used in the prequalification formula. A prospective bidder, who has been qualified to submit proposals with this type of statement, shall be limited to individual proposal sizes that do not exceed the lesser of ~~$600,000~~ $1,000,000 or the maximum prequalification amount minus the bidder's amount of uncompleted work currently under contract. Any combination of proposals, however, may total more than ~~$600,000~~ $1,000,000 - as long as that total does not exceed the maximum prequalification amount minus the currently uncompleted work.

Comments: This portion of the Standard Specifications is covered by the Administrative Rules.

Member's Requested Change: **(DO NOT USE "Track Changes," or "Mark-Up". Use ~~Strikeout~~/Highlight)**

B. CPA Reviewed Statement.
A CPA Reviewed Statement is a "Contractor's Financial-Experience-Equipment Statement" that includes a current CPA review of the financial portion of the statement. The review must be completed by a CPA who is either registered to practice in Iowa or registered in another state having reciprocal arrangements with Iowa.

When a CPA Reviewed Statement is submitted to the Department, an experience factor (F) ranging from 0.0 to 10.0, depending on the prospective bidder's past performance with projects let by the Department, will be used in the prequalification formula. A prospective bidder, who has been qualified to submit proposals with this type of statement, shall be limited to individual proposal sizes that do not exceed the lesser of ~~$600,000~~ $1,000,000 or the maximum prequalification amount minus the bidder's amount of uncompleted work currently under contract. Any combination of proposals, however, may total more than ~~$600,000~~ $1,000,000 - as long as that total does not exceed the maximum prequalification amount minus the currently uncompleted work.

Reason for Revision: I received a suggestion from a contractor that we needed to raise the threshold where a contractor would need to submit a CPA Audited Statement rather than only a CPA Reviewed Statement. The $600,000 was established about 15 years ago when the CPA Reviewed Statement was added as a third prequalification option, between the self prepared financial statement and the CPA Audited Statement. The Office of Contacts is requesting the $600,000 threshold of the CPA Reviewed Statement be raised to $1,000,000. This would allow smaller contractors to bid bridge projects, culverts contracts, erosion control projects and patching contracts which often now exceed $600,000, (but don't exceed $1,000,000) to obtain a CPA Reviewed Statement rather than the more expensive CPA Audited Statement.					
County or City Input Needed (X one)			**Yes**	**No** X	
Comments: This proposed change should have little, or likely no, impact on cities and counties.					
Industry Input Needed (X one)			**Yes** X	**No**	
Industry Notified:	**Yes** X	**No**	**Industry Concurrence:**	**Yes** X	**No**
Comments: I contacted Craig Hansen of Holmes Murphy and Associates, one of the major bond writers for our contractors. He took my request to his fellow bond writers and I received verbal concurrence from the bond writers on December 1, 2005.					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Roger Bierbaum	**Office:** Contracts	**Item 2**
Submittal Date: December 23, 2005	**Proposed Effective Date:** October 2006 GS	
Article No.: 1102.09 **Title:** Preparation of Proposals	**Other:**	

Specification Committee Action: Withdrawn.

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

Specification Committee Approved Text: Item withdrawn.

Comments: Item not ready for discussion.

Specification Section Recommended Text:

1102.09, PREPARATION OF PROPOSALS.

Replace $600,000 with $1,000,000 in the second sentences of the first paragraph.

Only contractors who have been authorized to bid a proposal may submit a bid for a contract. For bids submitted to the Department that exceed ~~$600,000~~ $1,000,000, the Contractor shall use subparagraph B or subparagraph C below. The Department may wave this requirement for unique or isolated situations.

Comments: This portion of the Standard Specifications is covered by the Administrative Rules.

Member's Requested Change: **(DO NOT USE "Track Changes," or "Mark-Up". Use ~~Strikeout~~/Highlight)**

1102.09 PREPARATION OF PROPOSALS.
Only contractors who have been authorized to bid a proposal may submit a bid for a contract. For bids submitted to the Department that exceed ~~$600,000~~$1,000,000, the Contractor shall use subparagraph B or subparagraph C below. The Department may wave this requirement for unique or isolated situations.

Reason for Revision: To have the requirement when a contractor must submit an electronic bid consistent with the requirements for contractors needing a CPA Audited Statement

County or City Input Needed (X one)	**Yes**	**No** X
Comments: No impact on cities and counties		

Industry Input Needed (X one)			**Yes** X	**No**	
Industry Notified:	**Yes** X	**No**	**Industry Concurrence:**	**Yes**	**No**
Comments: Industry has been notified of change and I expect their concurrence before the Specification Committee Meeting. This change actually makes the requirement "less" restrictive and allows a contractor to submit a paper bid up to $1,000,000					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Mike Kennerly / Chris Brakke	**Office:** Design	**Item 3**
Submittal Date: February 27, 2006	**Proposed Effective Date:** October 2006 GS	
Article No.: 2111.06 **Title:** Construction of Granular Subbase	**Other:**	

Specification Committee Action: Approved. Committee will review language in first paragraph of article for possible clarification of term "uniformly moist."

Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: Office of Design explained that they want to eliminate 2 inches of fines allowed in granular subbase to improve subbases and reduce subdrain problems. The Specifications Section asked if the Industry has been informed. The Office of Construction noted that they have been notified, but have given neither a positive nor a negative response.

The Office of Materials asked if the term "uniformly moist" (in the first paragraph) adequately describes what is wanted. They wanted to know if a moisture control specification is needed. The Office of Construction noted there haven't been any problems with the language. District 2 Materials suggested reviewing the language for a possible future change.

Specification Section Recommended Text:

2111.06, CONSTRUCTION OF GRANULAR SUBBASE.

Delete the fourth paragraph.

~~When recycled PCC pavement is used for granular subbase, the Contractor may replace a uniform layer of up to 2 inches (50 mm) of the bottom of the specified subbase material with screened fines resulting from production of subbase material by crushing the existing PCC concrete. The screened fines shall contain less than 15% material passing the No. 200 (75 µm) sieve. This layer of fines may be used as a working platform. The replacement of subbase material with screened fines shall not result in less than 4 inches (100 mm) thickness of granular subbase material meeting the requirements of Gradation No. 12 of Section 4109. When screened fines are placed in the bottom of a granular subbase, they shall be uniformly spread for the entire pavement width or uniformly spread on the high side of the subgrade only. Placement of screened fines shall be held back at least 2 feet (0.6 m) from all subdrain trenches. Screened fines need not be compacted separately.~~

Comments:

Member's Requested Change: (DO NOT USE "Track Changes," or "Mark-Up". Use ~~Strikeout~~/Highlight)

2111.06 CONSTRUCTION OF GRANULAR SUBBASE.
Granular subbase material shall be uniformly moist prior to, and during compaction. Subbase material shall be placed in accordance with the contract documents.

Granular subbase shall be compacted with a maximum of three passes of a self propelled, non-vibratory steel or pneumatic roller. The roller shall have a compactive effort of 150 to 200 pounds per lineal inch (2.7 to 3.5 kg/mm) of contact surface.

The placing and compaction procedures will be evaluated on an initial trial section approximately 500 feet (150 m) long. This evaluation is to assess the extent of material degradation, consolidation, and permeability.

~~When recycled PCC pavement is used for granular subbase, the Contractor may replace a uniform layer of up to 2 inches (50 mm) of the bottom of the specified subbase material with screened fines resulting from production of subbase material by crushing the existing PCC concrete. The screened fines shall contain less than 15% material passing the No. 200 (75 µm) sieve. This layer of fines may be used as a working platform. The replacement of subbase material with screened fines shall not result in less than 4 inches (100 mm) thickness of granular subbase material meeting the requirements of Gradation No. 12 of Section 4109. When screened fines are placed in the bottom of a granular subbase, they shall be uniformly spread for the entire pavement width or uniformly spread on the high side of the subgrade only. Placement of screened fines shall be held back at least 2 feet (0.6 m) from all subdrain trenches. Screened fines need not be compacted separately.~~

The profile and cross section tolerances for granular subbase shall be +0 to -0.05 foot (+0 mm to - 15 mm).

At the Contractor's option, the subbase may be constructed to a general elevation higher than the required design elevation and cut back to design elevation. In this case, excess material removed may be salvaged. It may be processed as required and used for any purpose for which it can be approved under the specifications. The price paid for salvaged and reused material will be the contract unit price for the material as used. If the exposed portions of the subbase are damaged or disturbed, they shall be restored to an acceptable condition, at the expense of the Contractor, prior to any subsequent operation that will cover or conceal these portions of the subbase.

For sections of pavement more than 600 feet (180 m) long, the subbase shall be completed not less than 600 feet (180 m) in advance of the operation of placing the concrete The granular subbase shall not be placed more than 2 months before the pavement is placed. The granular subbase may be placed in areas where the Engineer and the Contractor agree it is reasonable to expect pavement construction can be accomplished prior to winter shutdown. The trimming of the granular subbase shall be restricted to 1 mile (1.6 km) ahead of the paving operation when winter shutdown is eminent.

Reason for Revision: The placement of screened fines beneath the pavement and subbase is an issue that has been discussed for several years due to the belief that the material is not beneficial to the pavement or subdrain performance. Allowing the replacement of 2" of subbase with a material that appears to have questionable strength properties does not enhance the stability of the paving platform. In addition, the formation of Tufa on subdrain outlets is due in part to the presence of the screened fines and any step taken to reduce this problem is beneficial to the Department.

County or City Input Needed (X one)			**Yes**	**No X**	
Comments:					
Industry Input Needed (X one)			**Yes X**	**No**	
Industry Notified:	**Yes X**	**No**	**Industry Concurrence:**	**Yes**	**No**
Comments: The Office of Construction has contacted the ICPA and AGC about the proposed change.					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: John Smythe / Mark Bortle	**Office:** Construction	**Item 4**
Submittal Date: January 24, 2006	**Proposed Effective Date:** October 2006 GS	
Article No.: 2212.05, Limitation of Operations (Base Repair) 2307.04, Basis of Payment (Bituminous Seal Coat) 2308.11, Bituminous Fog Seal (Shoulders) 2529.12, limitation of Operations (Full Depth Finish Patches) 2530.06, Limitation of Operations (Partial Depth Finish Patches) 2539.06, Limitation of Operations (Concrete Pavement Undersealing by Pressure Grouting) 2541.05, Limitations (Crack and Joint Cleaning and Sealing (HMA Surfaces)) 2542.05, Traffic Control (Crack and Joint Cleaning and Sealing (PCC Pavement)) 2543.05, Limitations of Operations (Transverse Joint Repair for HMA Pavements)	**Other:**	

Specification Committee Action: Withdrawn.

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

Specification Committee Approved Text: Item withdrawn.

Comments: Item was unintentionally included in the agenda.

Specification Section Recommended Text:

2212.05, LIMITATION OF OPERATIONS.

Replace the third and fourth sentences of the third paragraph:

> The work schedule shall be adjusted so that all the excavating, backfilling, compacting, and finishing of each patch will be completed in 1 day for two lane roads. For roads with multiple lanes in each direction, the work area may include one lane in each direction or as allowed by the traffic control details. If unforeseen conditions should result in excavated sections being left overnight, traffic control shall remain ~~a sufficient number of flaggers shall be assigned to warn and direct traffic,~~ from the time construction operations have stopped until they have resumed again. No extra payment will be made for traffic control ~~the necessary flaggers~~.

2307.04, J, Traffic Control.

Replace the second indented paragraph following the seventh full paragraph:

~~One flagger shall be stationed immediately ahead of the application of the bitumen, one flagger immediately behind the bitumen, and one flagger immediately behind the section being rolled.~~ Suitable warning, speed limit, and fresh oil signs shall be displayed, and the signs shall be moved forward ~~with the flagger~~ as the work progresses.

2308.11, B, Traffic Control.

Replace the second sentence:

This payment shall be full compensation for furnishing all signs, barricades, ~~flaggers,~~ and other traffic control devices required for this work.

2529.12, LIMITATION OF OPERATIONS.

Delete the third sentence of the first indented paragraph:

When conditions permit, patch areas may extend up to 2 feet (0.6 m) into an adjacent lane. When this encroachment is not tabulated in the contract documents, it must be approved by the Engineer prior to beginning work. ~~A flagger will be required at these locations.~~ Work in an adjacent lane must be completed and opened to traffic the same day using PCC (Class A or B) or HMA to match the normal patch area material.

Replace the fourth indented paragraph:

If unforeseen difficulties should result in excavated areas being left overnight traffic control shall remain~~, a sufficient number of flaggers shall be assigned to warn and direct traffic~~ until the areas are complete. No extra payment will be made for this traffic control ~~the necessary flaggers~~.

2530.06, LIMITATIONS OF OPERATIONS.

Delete the second sentence of the second paragraph:

When approved by the Engineer, patch areas may extend up to 2 feet (0.6 m) into an adjacent lane as allowed in the traffic control plan. ~~In this case, a flagger will be required at that location until the work is completed.~~ Class A patching material shall be used in these patches.

Replace the third and fourth paragraphs:

The work schedule shall be adjusted so all work for each patch, including removal of barricades and equipment, except the cure period for PCC Class C concrete, will be completed on the same day it is started between the hours of 30 minutes after sunrise to 30 minutes before sunset. An adjacent lane must be opened to traffic prior to the old pavement being removed from a patch area. If unforeseen conditions result in excavated areas being left overnight, traffic control shall remain ~~a sufficient number of flaggers shall be assigned to warn and direct traffic~~ until the patches are complete. Extra payment will not be made for this traffic control ~~the necessary flaggers~~.

2539.06, LIMITATIONS OF OPERATIONS.

Replace the third and fourth sentences of the sixth paragraph:.

The work schedule shall be adjusted so that all traffic lanes can be opened to public traffic during nonworking hours. Drilled holes shall be limited to the amount that can be grouted during the following working day, unless approval is given by the Engineer. If unforeseen conditions should result in uncompleted sections being left overnight, and requiring protection, traffic control shall remain ~~a sufficient number of traffic control devices and flaggers shall be~~

~~used to warn and direct traffic,~~ from the time construction operations have stopped until they have resumed again. No extra payment will be made for the necessary traffic control ~~devices and flaggers~~.

2541.05, LIMITATIONS.

Delete the second sentence of the second paragraph:

The work shall be conducted on only one lane of the pavement width at a time. ~~When work encroaches on an adjacent lane, a flagger will be required at that location.~~

2542.05, TRAFFIC CONTROL.

Delete the second sentence of the second paragraph:

The work shall be conducted on only one lane of the pavement width at a time. ~~When work encroaches on an adjacent lane, a flagger will be required at that location.~~

2543.05, LIMITATIONS OF OPERATIONS.

Replace the second and third sentences of the second paragraph:

The Contractor shall adjust the work schedule so that all the milling, cleaning, filling and compacting, and sealing of each transverse joint repair will be completed in 1 day if the road is not closed to traffic. If unforeseen conditions should result in milled trench sections being left overnight, traffic control shall remain ~~a sufficient number of flaggers shall be assigned to warn and direct traffic,~~ from the time construction operations have stopped until they have resumed again. No extra payment will be made for this traffic control ~~the necessary flaggers~~.

Comments:

Member's Requested Change: (DO NOT USE "Track Changes," or "Mark-Up". Use ~~Strikeout~~/Highlight)

Section 2212. Base Repair.

2212.05 LIMITATION OF OPERATIONS.
The work shall be conducted on only one lane at a time unless the road is closed.

Unless the road is closed, traffic shall be permitted to use the pavement during construction operations. All operations shall be conducted to provide a minimum of inconvenience to traffic.

The work schedule shall be adjusted so that all the excavating, backfilling, compacting, and finishing of each patch will be completed in 1 day for two lane roads. For roads with multiple lanes in each direction, the work area may include one lane in each direction or as allowed by the traffic control details. If unforeseen conditions should result in excavated sections being left overnight, traffic control shall remain ~~a sufficient number of flaggers shall be assigned to warn and direct traffic,~~ from the time construction operations have stopped until they have resumed again. No extra payment will be made for traffic ~~control the necessary flaggers~~.

Section 2307. Bituminous Seal Coat.

2307.04 CONSTRUCTION, J. Traffic Control, paragraph 7
Provisions for handling other traffic are as follows:

Traffic shall be directed through restricted portions of the project with pilot cars described in Article 2528.04. The Contractor shall furnish pilot cars and pilot car signs.

~~One flagger shall be stationed immediately ahead of the application of the bitumen, one flagger immediately behind the bitumen, and one flagger immediately behind the section being rolled.~~ Suitable warning, speed limit, and fresh oil signs shall be displayed, and the signs shall be moved forward ~~with the flagger~~ as the work progresses.

Section 2308. Bituminous Fog Seal (Shoulders).

2308.11 BASIS OF PAYMENT.
For the quantity of items involved in construction of Bituminous Fog Seal (Shoulders), the Contractor will be paid as follows:

A. Asphalt Emulsion for Fog Seal.
The Contractor will be paid the contract unit price per gallon (liter) for undiluted Asphalt Emulsion for Fog Seal that is mixed and used on the project. Diluted asphalt emulsion that is delivered to the job site but not applied to the roadway surface will not be considered for payment.

This payment shall be full compensation for cleaning the shoulder surface, furnishing and applying the diluted asphalt emulsion, mixing water, furnishing and applying sand cover, and protecting the adjacent pavement and edge lines, including special protection and dams in areas of superelevated curves.

B. Traffic Control.
For Traffic Control, the Contractor will be paid the lump sum contract price. This payment shall be full compensation for furnishing all signs, barricades, ~~flaggers,~~ and other traffic control devices required for this work.

Section 2529. Full Depth Finish Patches.

2529.12 LIMITATION OF OPERATIONS.
All operations shall be conducted with minimum inconvenience to traffic. Traffic shall be maintained during construction operations unless the road is closed. On two-lane roads, patching shall be conducted on only one lane at a time when traffic is maintained. For roads with multiple lanes each direction, the work area may include one lane each direction or as allowed by the traffic control details.

When conditions permit, patch areas may extend up to 2 feet (0.6 m) into an adjacent lane. When this encroachment is not tabulated in the contract documents, it must be approved by the Engineer prior to beginning work. ~~A flagger will be required at these locations.~~ Work in an adjacent lane must be completed and opened to traffic the same day using PCC (Class A or B) or HMA to match the normal patch area material.

When HMA patches on two-lane roadways and PCC patches with calcium chloride are constructed, the work schedule shall be adjusted so all equipment and obstructions are removed from the travel lanes and shoulders from 30 minutes before sunset to 30 minutes after sunrise.

When PCC patches without calcium chloride are constructed, a Type II Barricade shall be placed in front of each patch location where there is a possibility of turning into or returning to the closed lane. These barricades need not be spaced closer than 150 feet (45 m).

If unforeseen difficulties should result in excavated areas being left overnight traffic control shall remain~~, a sufficient number of flaggers shall be assigned to warn and direct traffic~~ until the areas are complete. No extra payment will be made for this traffic control ~~the necessary flaggers~~.

Section 2530. Partial Depth Finish Patches.

2530.06 LIMITATIONS OF OPERATIONS.
Traffic shall be maintained to use the pavement during construction operations unless the road is closed. All operations shall be conducted with minimum inconvenience to traffic. On two-lane roads, operation shall be limited to one traffic lane at a time except for minor encroachment in the adjacent lane for sawing and installing forms when traffic is maintained. For multiple lane roadways, the work area may include one lane in each direction.

When approved by the Engineer, patch areas may extend up to 2 feet (0.6 m) into an adjacent lane as allowed in the traffic control plan. ~~In this case, a flagger will be required at that location until the work is completed.~~ Class A patching material shall be used in these patches.

The work schedule shall be adjusted so all work for each patch, including removal of barricades and equipment, except the cure period for PCC Class C concrete, will be completed on the same day it is started between the hours of 30 minutes after sunrise to 30 minutes before sunset. An adjacent lane must be opened to traffic prior to the old pavement being removed from a patch area. If unforeseen conditions result in excavated areas being left overnight, traffic control shall remain ~~a sufficient number of flaggers shall be assigned to warn and direct traffic~~ until the patches are complete. Extra payment will not be made for this traffic control ~~the necessary flaggers~~.

Section 2539. Concrete Pavement Undersealing by Pressure Grouting.

2539.06 LIMITATIONS OF OPERATIONS.
Pavement undersealing shall not be done when the temperature at the bottom of the pavement slab is below 40°F (4°C).

Grout shall not be held in the mixer or injection pump sump for more than 45 minutes after mixing. Any grout held for a longer time shall not be used and will be deducted from the pay quantity.

Traffic will be permitted on the undersealed pavement slab when the grout has obtained a set satisfactory to the Engineer. The minimum set time shall be included in the mix design approval, intended for ideal temperature conditions. It is anticipated that the set time will be extended to approximately 6 hours at 40°F (4°C) and 4 hours at 50°F (10°C). The minimum set time will vary with individual material combinations.

The work shall be conducted on only 50% the pavement width at a time.

Traffic shall be permitted to use the pavement during construction operations, and all operations shall be conducted to provide a minimum of inconvenience to traffic.

The work schedule shall be adjusted so that all traffic lanes can be opened to public traffic during nonworking hours. Drilled holes shall be limited to the amount that can be grouted during the following working day, unless approval is given by the Engineer. If unforeseen conditions should result in uncompleted sections being left overnight, and requiring protection, traffic control shall remain ~~a sufficient number of traffic control devices and flaggers shall be used to warn and direct traffic,~~ from the time construction operations have stopped until they have resumed again. No extra payment will be made for the necessary traffic control ~~devices and flaggers~~.

Section 2541. Crack and Joint Cleaning and Sealing (HMA Surfaces).

2541.05 LIMITATIONS.
Crack cleaning and sealing shall be done only when the ambient air and pavement surface temperatures are above 40°F (4°C). When near this minimum, additional air blasting or drying time or both may be necessary to assure a satisfactory bond to the crack surfaces. Crack sealing after September 30 will not be allowed.

The work shall be conducted on only one lane of the pavement width at a time. ~~When work encroaches on an adjacent lane, a flagger will be required at that location.~~

Section 2542. Crack and Joint Cleaning and Sealing (Portland Cement Concrete Pavement).

2542.05 TRAFFIC CONTROL.
When there is a separate item for traffic control, all signs and traffic control devices, such as flaggers, barricades, traffic cones, warning lights, and pilot car signs (when required) shall be furnished by the Contractor in accordance with Section 2528. All traffic control devices are to be erected, maintained, and removed by the Contractor.

The work shall be conducted on only one lane of the pavement width at a time. ~~When work encroaches on an adjacent lane, a flagger will be required at that location.~~

Section 2543. Transverse Joint Repair for HMA Pavements.

2543.05 LIMITATIONS OF OPERATIONS.
The work shall be conducted on one lane at a time unless the road is closed to traffic. If the road is not closed, the Contractor shall conduct all operations to provide a minimum of inconvenience to traffic.

The Contractor shall adjust the work schedule so that all the milling, cleaning, filling and compacting, and sealing of each transverse joint repair will be completed in 1 day if the road is not closed to traffic. If unforeseen conditions should result in milled trench sections being left overnight, traffic control shall remain ~~a sufficient number of flaggers shall be assigned to warn and direct traffic,~~ from the time construction operations have stopped until they have resumed again. No extra payment will be made for this traffic control ~~the necessary flaggers~~.

Reason for Revision: Deletion of additional references in the standard specifications relating to use of SLOW/SLOW flaggers. The use of SLOW/SLOW flaggers has been discontinued by the Department per minutes of October 13, 2005 Specification Committee meeting and incorporated into the April 18, 2006 GS-01010.

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

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: John Smythe / Kevin Merryman	**Office:** Construction	**Item 5**
Submittal Date: February 27, 2006	**Proposed Effective Date:** October 2006 GS	
Article No.: 2214.05 **Title:** Limitations (Pavement Scarification)	**Other:**	

Specification Committee Action: Approved.

Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text: See Specifications Section Recommended Text.

Comments: The Office of Construction explained that this change makes the article more generic so that it can be applied to both HMA and PCC pavements.

Specification Section Recommended Text:

2214.05, LIMITATIONS.

Replace the first and second sentences of the eight paragraph:

The Contractor shall begin ~~HMA placement~~ resurfacing operations within 10 working days after completion of the scarification operation. Once started, ~~HMA~~ placement shall occur on each working day until such time that the scarified surface is completely covered ~~with HMA~~. Failure to comply with these requirements will result in the assessment of a price adjustment equal to the liquidated damages stated in the contract documents. The Contractor shall be responsible for repair of any damage to the scarified surface occurring during a time period for which liquidated damages are being assessed.

Replace the first sentence of the ninth paragraph:

When ~~HMA~~ resurfacing is part of the contract, all scarified surfaces shall be covered with at least one full lift of HMA prior to winter shutdown. The Contractor shall leave no vertical edges or fillets.

Comments:

Member's Requested Change (Redline/Strikeout):

Make the following changes to the 8th and 9th paragraphs of Article 2214.05 LIMITATIONS:

The Contractor shall begin ~~HMA placement~~ resurfacing operations within 10 working days after completion of the scarification operation. Once started, ~~HMA~~ placement shall occur on each working day until such time that the scarified surface is completely covered ~~with HMA~~. Failure to comply with these requirements will result in the assessment of a price adjustment equal to the liquidated damages stated in the contract documents. The Contractor shall be responsible for repair of any damage to the scarified surface occurring during a time period for which liquidated damages are being assessed.

When HMA resurfacing is part of the contract, all scarified surfaces shall be covered with at least one full lift of HMA prior to winter shutdown. The Contractor shall leave no vertical edges or fillets.

Reason for Revision: When changes were made to this article in the April 2006 GS, language was added to the above paragraphs that was specific to HMA resurfacing. However, this article can apply to both HMA and PCC resurfacing work. The proposed changes restore the article to a more generic form that can apply to both types of work.					
County or City Input Needed (X one)			**Yes**	**No** X	
Comments:					
Industry Input Needed (X one)			**Yes**	**No** X	
Industry Notified:	**Yes**	**No** X	**Industry Concurrence:**	**Yes**	**No**
Comments:					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jim Berger / Todd Hanson	**Office:** Materials	**Item 6**
Submittal Date: February 9, 2006	**Proposed Effective Date:** October 2006	
Article No.: 2301.04, C **Title:** Entrained Air Content (PCC Pavement)	**Other:**	

Specification Committee Action: Approved.

Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: The Office of Materials explained that the proposed changes are intended to clean up the language regarding air entrainment for batch plant and ready mix.

Specification Section Recommended Text:

2301.04, C, Entrained Air Content.

Replace the entire article:

Air entrainment shall be accomplished by addition of an approved air entraining agent. Air content as determined by Materials I.M. 318, shall be determined on each day of production as early and as frequently as necessary until the air content is consistently acceptable. The intended air content of finished concrete is 6.0% and the target air content shall be determined to account for air loss during consolidation of concrete during slip form paving. The difference between before and after the paver air contents for a given location shall be considered the air loss.

For central batch plant on the first day of paving, the air content shall be tested at the plant and the air content of the first load shall be between 8.0% and 12.0%. The next ten loads will be accepted on the basis of this complying air test. Starting with the twelfth load all samples shall be taken at the point of acceptance and the air content before the paver shall be 7.5% plus 1.5% or minus 1.0%.

For ready mixed concrete the air content before the paver shall be 7.5% plus 1.5% or minus 1.0%.

For projects greater than 7500 square yards (6000 m^2), the air loss shall be determined at a minimum of two locations. The air loss from both locations shall be averaged and added to 6.0% to establish the target air content, rounded to the next higher 0.5%. After the air loss has been established, the air content before the paver shall be target air content plus 1.5% or minus 1.0%

After the first day of paving, the air content before the paver shall be the target air content plus 1.5% or minus 1.0%. A new target air content shall be established if the average air loss from two consecutive tests deviates by more than 0.5% from the air loss.

For projects less than 7500 square yards (6000 m^2) the air content before the paver shall be 7.5% plus 1.5% or minus 1.0%. At the option of the Contractor, the target air content may be established using the air loss.

The air content for non slip form paving shall be 7.0% plus 1.5% or minus 1.0%.

Comments:

Member's Requested Change (Redline/Strikeout):

C. Entrained Air Content.
Air entrainment shall be accomplished by addition of an approved air entraining agent. Air content as determined by Materials I.M. 318, shall be determined on each day of production as early and as frequently as necessary until the air content is consistently acceptable. The intended air content of finished concrete is 6.0% and the target air content shall be determined to account for air loss during consolidation of concrete during slip form paving. The difference between before and after the paver air contents for a given location shall be considered the air loss.

On the first day of paving, air content shall be tested as follows ~~the first load shall be tested at the plant~~. For central batch plant, the first load shall be tested at the plant and t~~T~~he air content shall be between 8.0% and 12.0%. The next ten loads will be accepted on the basis of this complying air test. Starting with the twelfth load all samples shall be taken at the point of acceptance and the air content before the paver shall be 7.5% plus 1.5% or minus 1.0%. For ready mixed concrete the air content before the paver shall be 7.5% plus 1.5% or minus 1.0%.

For projects greater than 7500 square yards (6000 m^2), t~~T~~he air loss shall be determined at a minimum of two locations. The air loss from both locations shall be averaged and added to 6.0% to establish the target air content, rounded to the next higher 0.5%. After the air loss has been established, the air content before the paver shall be target air content plus 1.5% or minus 1.0%

After the first day of paving, the air content before the paver shall be the target air content plus 1.5% or minus 1.0%. A new target air content shall be established if the average air loss from two consecutive tests deviates by more than 0.5% from the air loss.

For projects less than 7500 ~~5000~~ square yards (6000 ~~4000~~ m^2) the air content before the paver shall be 7.5% plus 1.5% or minus 1.0%. At the option of the Contractor, the target air content may be established using the air loss.

The air content for non slip form paving shall be 7.0% plus 1.5% or minus 1.0%.

Reason for Revision: Original spec set up for central batch plant where air could not be adjusted. Some problems with interpretation on Ready mix paving projects prompted the change to clarify the intent.

County or City Input Needed (X one)			**Yes**	**No**	
Comments:					
Industry Input Needed (X one)			**Yes** X	**No**	
Industry Notified:	**Yes** X	**No**	**Industry Concurrence:**	**Yes** X	**No**
Comments: Gordon sent out for comments and most thought it to be a better approach.					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: John Smythe / Kevin Merryman	**Office:** Construction	**Item 7**
Submittal Date: February 22, 2006	**Proposed Effective Date:** October 2006	
Article No.: 2301.13, D **Title:** Mixing of Materials	**Other:**	

Specification Committee Action: Approved.

Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: The Office of Construction explained that the proposed changes would allow the Engineer to approve contractors to receive concrete from more than one batch plant or ready mix plant, provided the same materials are used in all plants. Currently, the specifications do not address this issue.

The Office of Local Systems asked if the materials also need to be from the same source, and should the specifications state this. The Office of Construction noted that furnishing concrete from multiple plants requires the Engineer's approval; the Engineer should be able to verify that materials come from the same source. The committee agreed the language is fine as is.

Specification Section Recommended Text:

2301.13, D, Mixing of Materials.

Replace the first paragraph:

> Concrete materials shall be either mixed at the site of placement or mixed in a construction or stationary mixer to be used for work on the project only, or ready mixed or transit mixed concrete. During any one individual placement; the same cement, aggregates, and admixtures shall be used throughout the placement unless otherwise approved by the Engineer. With approval of the Engineer, concrete mixtures may be furnished from multiple plants provided the same materials are used in each mixture and mix consistency can be maintained.

Comments:

Member's Requested Change (Redline/Strikeout):

D. Mixing of Materials.

Concrete materials shall be either mixed at the site of placement or mixed in a construction or stationary mixer to be used for work on the project only, or ready mixed or transit mixed concrete. During any one individual placement, the same cement, aggregates, and admixtures shall be used throughout the placement unless otherwise approved by the Engineer. With approval of the Engineer, concrete mixtures may be furnished from multiple plants provided the same materials are used in each mixture and mix consistency can be maintained.

Reason for Revision: During high production paving operations, concrete may need to be mixed at multiple plants. The specifications do not specifically address requirements for concrete mixtures produced at different plants for the same placement. The proposed change clarifies requirements for concrete mixtures produced from multiple plants.					
County or City Input Needed (X one)			**Yes**	**No** X	
Comments:					
Industry Input Needed (X one)			**Yes**	**No** X	
Industry Notified:	**Yes**	**No**	**Industry Concurrence:**	**Yes**	**No**
Comments:					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jim Berger / Todd Hanson	**Office:** Materials	**Item 8**
Submittal Date: January 4, 2006	**Proposed Effective Date:** October 2006	
Article No.: 2301.34, A **Title:** Portland Cement Concrete Pavement (Method of Measurement)	**Other:**	

Specification Committee Action: The committee decided to defer this item.

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

Specification Committee Approved Text:

Comments: The Office of Materials explained that this change has already been applied to the Materials I.M.s and to the Construction Manual. These changes are being made to meet new regulations for Quality Control/Quality Assurance (QC/QA). District 6 Construction mentioned that securing the cores had been proposed as an alternative to taking possession. They asked if this would be a part of this change. The Office of Materials explained that they currently do not have a means of securing cores. District 6 Construction noted that it is not clearly stated as to who will transport the cores to the plant; the text implies that the Contracting Authority would take possession of the cores and transport them to the plant. The Office of Materials noted that until a method for securing is devised, the Contracting Authority would have to be responsible for transporting them. District 2 Materials mentioned that if a method of securing cores is devised, Article 2524.02 would cover hauling the cores.

The Office of Bridges and Structures noted that we will need to inform our people that the Contracting Authority will be hauling samples. The Office of Materials agreed and added that until we come up with a means for securing samples, the Contracting Authority will need to take possession of samples and transport them.

The Office of Contracts noted this could conflict with Article 2524.02. The Office of Construction noted that implementation of new QC/QA regulations may also require changes to Section 2524 since the Contracting Authority will need to be a part of the chain of custody. This will require some means of securing samples.

The Office of Materials asked to defer this item until the next meeting.

Specification Section Recommended Text:

2301.34, A, Portland Cement Concrete Pavement.

Replace the third paragraph of the second indented paragraph:

> At locations determined by the Engineer, the Contractor shall cut samples from the pavement, as directed above, by drilling with a core drill of a size that will provide samples with a 4-inch (101.6 mm) outside diameter. The Contractor shall restore the surface by tamping low-slump concrete into the hole, finishing and texturing. The Engineer will witness the core drilling and take immediate possession of the cores. ~~The Contractor shall identify and deliver the cores to the field laboratory or plant inspector.~~ The Engineer will measure the cores and determine the thickness index in accordance with Materials I.M. 346.

Comments:

Member's Requested Change (Redline/Strikeout):

2301.34 METHOD OF MEASUREMENT.

A. Portland Cement Concrete Pavement.
The quantity of Standard or Slip-Form Portland Cement Concrete Pavement of the type specified in square yards (square meters), will be the quantity shown in the contract documents and applies to pavement, concrete pavement widening greater than 6 feet (1.8 m), side street connections, crossovers, ramps, acceleration and deceleration lanes or auxiliary lanes, and concrete paved shoulders having the same design thickness. The coring requirements for thickness do not apply to detour pavements, paved drives, and temporary pavements. The thickness of pavement constructed will be determined from core depths as follows:

The division of lots, number of lots, lot sizes, and core locations shall be in accordance with Materials I.M. 346.

At locations determined by the Engineer, the Contractor shall cut samples from the pavement, as directed above, by drilling with a core drill of a size that will provide samples with a 4-inch (101.6 mm) outside diameter. The Contractor shall restore the surface by tamping low-slump concrete into the hole, finishing and texturing. The Engineer will witness the core drilling and take immediate possession of the cores. ~~The Contractor shall identify and deliver the cores to the field laboratory or plant inspector.~~ The Engineer will measure the cores and determine the thickness index in accordance with Materials I.M. 346.

Reason for Revision:

County or City Input Needed (X one)	**Yes**	**No**
Comments: The spec does not match the requirements by the FHWA concerning sampling of cores for quality assurance. It is correct in IM 346 and the Construction Manual.		

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

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: John Smythe / Kevin Merryman	**Office:** Construction	**Item 9**
Submittal Date: February 22, 2006	**Proposed Effective Date:** October 2006	
Section No.: 2310 **Title:** Portland Cement Concrete Overlay	**Other:**	

Specification Committee Action: Approved

Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text: For Articles 2310.02, B; 2310.03, B; 2310.04, D; and 2310.05, D, 1 see Specification Section Recommended Text.

2310.02, A, Bonded Overlays.

Replace the title and entire article:

A. Concrete.

Class C concrete shall be used for PCC Overlays as specified in Materials I.M. 529, except a C-3WR or C-4WR mix design shall be required for Bonded Overlays.

The Gradation of coarse aggregate shall meet the requirements of Section 4109, Aggregate Gradation Table, Gradation No. 3 or 5. The nominal maximum coarse aggregate size shall be no greater than one-third of the overlay thickness.

Unless otherwise specified, the coarse aggregate for bonded overlays shall be the same type of aggregate as the existing pavement.

2310.03, B, 1, Bonded Overlays.

Replace **the first sentence:**

The surface shall be prepared by shot blasting, or shall be scarified and followed by either shot blasting or sand blasting. Scarification shall be to a nominal depth of 1/4 inch (5 mm). In either case, the preparation shall be of an extent to remove all dirt, oil, and other foreign materials, as well as any laitance or loose material from the surface and edges against which new concrete is to be placed.

2310.05, A, Portland Cement Concrete, Furnish Only.

Replace the title:

A. Portland Cement Concrete Overlay, Furnish Only.

2310.05, B, Portland Cement Concrete Overlay, Placement Only.

Replace the second sentence:

The Contractor will be paid the contract unit price per square yard (square meter) for Portland Cement Concrete Overlay, Placement Only. This payment shall be full compensation for furnishing all materials, labor, and equipment necessary to place, finish, texture, and cure the concrete, including the placement of tie bars for widening, if required; ~~, and~~ sawing, cleaning, and sealing the joints, if required~~,~~; and surface cleaning.

Comments: The Office of Construction explained that the changes to 2310.02, A, came about from a review of aggregate durability requirements and mix class requirements for PCC items. Current overlay specification do not address these for all overlay types. The proposed changes would cover all overlay types. The request to rename 2310.02, B is intended as a clarification that the paragraph is intended for HMA stress relief coarse. The addition of sandblasting to 2310.03, B, 1 was an industry request. This was supposed to be in the rewrite of Section 2310, but was not included. Changes to Method of Measurement and Basis of Payment are intended to clear up the language.

District 2 noted that in the second sentence of the second paragraph of 2310.02, A, the word "size" needs to be added after "course aggregate".

District 6 asked what would dictate when to use measurement by weight or measurement by area for stress relief course. The Office of Local Systems explained that if the pavement surface is uneven, the designer may want to choose weight rather than square yards. District 6 asked how the designer would know which to use. The Office of Local Systems asked if this could go into the Design Manual. The Office of Design said this is a possibility.

The Office of Construction explained that industry had requested removing final cleaning from preparation of surface item and making it incidental to the placement of the overlay since final cleaning is always done prior to placing an overlay. The Office of Contracts noted that surface cleaning is covered in 2310.03, C. They noted the proposed added language in Article 2310.05, B describes the surface preparation work being done, and this language probably belongs elsewhere in the specification. They suggested replacing the proposed added language with just: and surface cleaning. The Office of Construction agreed.

The Office of Contracts asked if the word "either" should be added to the first sentence of 2310.03, B, 1 after "and followed by". The wording as proposed could be interpreted as indicating sandblasting is a third alternative. This is not the intent. The committee agreed to adding the word "either" to clarify there are only two alternatives.

The Office of Contracts also noted an inconsistency between the titles of Articles 2310.04, A and 2310.05, A. They suggested adding the word "Overlay" to the title of 2310.05, A. The bid item is Portland Cement Concrete Overlay, Furnish Only.

Specification Section Recommended Text:

2310.02, A, Bonded Overlays.

Replace the title and entire article:

A. Concrete.

Class C concrete shall be used for PCC Overlays as specified in Materials I.M. 529 , except a C-3WR or C-4WR mix design shall be required for Bonded Overlays.

The Gradation of coarse aggregate shall meet the requirements of Section 4109, Aggregate Gradation Table, Gradation No. 3 or 5. The nominal maximum coarse aggregate shall be no greater than one-third of the overlay thickness.

Unless otherwise specified, the coarse aggregate for bonded overlays shall be the same type of aggregate as the existing pavement.

2310.02, B, Unbonded Overlays

Replace the title:

B. Hot Mix Asphalt Stress Relief Course.

2310.03, B, Preparation of Surface.

Delete the third paragraph:

~~The Contractor shall clean the existing surface of all loose or adhering foreign material prior to placement of the PCC overlay.~~

2310.03, B, 1, Bonded Overlays.

Replace the first sentence:

The surface shall be prepared by shot blasting, or shall be scarified and followed by shot blasting or sand blasting. Scarification shall be to a nominal depth of 1/4 inch (5 mm). In either case, the preparation shall be of an extent to remove all dirt, oil, and other foreign materials, as well as any laitance or loose material from the surface and edges against which new concrete is to be placed.

2310.04, D, Hot Mix Asphalt Stress Relief Course.

Replace the entire article:

D. Hot Mix Asphalt Stress Relief Course

1. Measurement by Weight (Mass).
When measurement is by weight (mass), the quantity of Hot Mix Asphalt Stress Relief Course will be expressed in tons (megagrams) and determined from the weight (mass) of individual loads, including fillets, measured to the nearest 0.01 tons (0.01 Mg). Loads may be weighed in trucks, weigh hoppers, or from the weight (mass) from batch plants computed by count of batches in each truck and batch weight (mass). Article 2001.07 shall apply.

The asphalt binder will be measured in accordance with Article 2303.05, B.

2. Measurement by Area.
When payment is based on square yards (square meters), the quantity of Hot Mix Asphalt Stress Relief Course, in square yards (square meters), will be the quantity shown in the contract documents.

The quantity of asphalt binder used will not be measured separately for payment.

2310.05, B, Portland Cement Concrete Overlay, Placement Only.

Replace the second sentence:

The Contractor will be paid the contract unit price per square yard (square meter) for Portland Cement Concrete Overlay, Placement Only. This payment shall be full compensation for furnishing all materials, labor, and equipment necessary to place, finish, texture, and cure the concrete, including the placement of tie bars for widening, if required; ~~, and~~ sawing, cleaning, and sealing the joints, if required~~,~~; and final cleaning of the existing surface to remove all loose or adhering foreign material immediately prior to overlay placement.

2310.05, D, 1, Measurement by Weight (Mass).

Add as the third sentence:

The Contractor will be paid the contract unit price per ton (megagram) for Hot Mix Asphalt Stress Relief Course as measured above. This payment shall be full compensation for furnishing and placing the HMA Stress Relief Course. The Contractor will be paid separately for the asphalt binder in accordance with Article 2303.06, B.

Comments:

Member's Requested Change (Redline/Strikeout):

Make the following changes to Article 2310.02 MATERIALS:

2310.02 MATERIALS.

A. Concrete.

Class C concrete shall be used for PCC Overlays as specified in Materials I.M. 529 , except a C-3WR or C-4WR mix design shall be required for Bonded Overlays.

The Gradation of coarse aggregate shall meet the requirements of Section 4109, Aggregate Gradation Table, Gradation No. 3 or 5. The nominal maximum coarse aggregate shall be no greater than one-third of the overlay thickness.

Unless otherwise specified, the coarse aggregate for bonded overlays shall be the same type of aggregate as the existing pavement.

B. Hot Mix Asphalt Stress Relief Course.

Make the following changes to Article 2310.03 B. PREPARATION OF SURFACE:

B. PREPARATION OF SURFACE.
If full depth base repair is included in the project, it shall be completed prior to surface preparation.

Surface preparation shall include the entire surface to be resurfaced. Materials removed in the preparation operation may be placed in the shoulder area unless otherwise specified in the contract documents.

~~The Contractor shall clean the existing surface of all loose or adhering foreign material prior to placement of the PCC overlay.~~

1. Bonded Overlays.
The surface shall be prepared by shot blasting, or shall be scarified and followed by shot blasting or sand blasting. Scarification shall be to a nominal depth of 1/4 inch (5 mm). In either case, the preparation shall be of an extent to remove all dirt, oil, and other foreign materials, as well as any laitance or loose material from the surface and edges against which new concrete is to be placed.

Replace Article 2310.04 D Hot Mix Asphalt Stress Relief Course with the following:

D. Hot Mix Asphalt Stress Relief Course

1. Measurement by Weight (Mass).
When measurement is by weight (mass), the quantity of Hot Mix Asphalt Stress Relief Course will be expressed in tons (megagrams) and determined from the weight (mass) of individual loads, including fillets, measured to the nearest 0.01 tons (0.01 Mg). Loads may be weighed in trucks, weigh hoppers, or from the weight (mass) from batch plants computed by count of batches in each truck and batch weight (mass). Article 2001.07 applies.

The asphalt binder will be measured in accordance with Article 2303.05, B.

2. Measurement by Area.
When payment is based on square yards (square meters), the quantity of Hot Mix Asphalt Stress Relief Course, in square yards (square meters), will be the quantity shown in the contract documents.

The quantity of asphalt binder used will not be measured separately for payment.

Make the following changes to Article 2310.05B Portland Cement Concrete Overlay, Placement Only

B. Portland Cement Concrete Overlay, Placement Only.
The Contractor will be paid the contract unit price per square yard (square meter) for Portland Cement Concrete Overlay, Placement Only. This payment shall be full compensation for furnishing all materials, labor, and equipment necessary to place, finish, texture, and cure the concrete, including the placement of tie bars for widening, if required, ~~and~~ sawing, cleaning, and sealing the joints, if required, and final cleaning of the existing surface to remove all loose or adhering foreign material immediately prior to overlay placement.

Replace Article 2310.05 D Hot Mix Asphalt Stress Relief Course with the following:

D. Hot Mix Asphalt Stress Relief Course.

1. Measurement by Weight (Mass).
The Contractor will be paid the contract unit price per ton (megagram) for Hot Mix Asphalt Stress Relief Course as measured above. This payment shall be full compensation for furnishing and placing the HMA Stress Relief Course. The Contractor will be paid separately for the asphalt binder in accordance with Article 2303.06, B.

2. Measurement by Area.
The Contractor will be paid the contract unit price per square yard (square meter) for Hot Mix Asphalt Stress Relief Course constructed. This payment shall be full compensation for furnishing and placing the HMA stress relief course, including the cost of the asphalt binder.

Reason for Revision: The proposed changes include a clarification of the materials requirements for PCC overlays including a PCC mix class and aggregate requirements for all types of overlays. Also proposed are clarifications to the Method of Measurement and Basis of Payment for the HMA Stress Relief Course. The old language was unclear as to whether payment is made by both weight and area or one or the other. Clarification was also needed regarding payment for the asphalt binder.

A change is also proposed to make final cleaning of the pavement incidental to the overlay placement. This language is currently in the Preparation of Surface item, but that item is not always used. Since cleaning is always necessary, it is felt that it should be an incidental. Finally, the industry has requested that the option of shot blasting or sand blasting be allowed after milling to prepare the surface for bonded overlays.

County or City Input Needed (X one)			**Yes**	**No** X	
Comments:					
Industry Input Needed (X one)			**Yes** X	**No**	
Industry Notified:	**Yes** X	**No**	**Industry Concurrence:**	**Yes** X	**No**
Comments: The concrete paving association is aware of these changes and provided input into the proposed language.					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jim Berger / Todd Hanson	**Office:** Materials	**Item 10**
Submittal Date: January 4, 2006	**Proposed Effective Date:** October 2006	
Article No.: 2424.02, D **Title:** Coarse Aggregate for Concrete (Shotcrete)	**Other:**	

Specification Committee Action: Approved.			
Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: The Office of Materials explained that the language they are proposing to eliminate is covered in Section 4115.

Specification Section Recommended Text:

2424.02, D, Coarse Aggregate for Concrete.

Replace the entire article:

D. Coarse Aggregate for Concrete.
Coarse aggregate for concrete shall meet requirements of Section 4115 and the following ~~additional~~ gradation requirements:

~~**1. Durability.**~~
~~The aggregate shall be from a source approved for Class 2 or better durability, as defined in Article 4115.04.~~

~~**2. Gradation.**~~
~~The gradation shall be as follows:~~

GRADATION	
Sieve No.	**Percent Passing**
3/4" (19 mm)	100
1/2" (12.5 mm)	97-100
3/8" (9.5 mm)	40-90
No. 4 (4.75 mm)	0-30
No. 200 (75 µm)	0-1.5
The maximum percent passing the No. 200 (75 µm) sieve may be increased to 2.5%, provided the documented production limit agreed to and maintained is 1.0% or less and any increase up to 2.5% is due to degradation of the parent material and not to contamination by other material.	

Comments:

Member's Requested Change (Redline/Strikeout):

D. Coarse Aggregate for Concrete.
Coarse aggregate for concrete shall meet requirements of Section 4115 and the following ~~additional~~ gradation requirements:

~~**1. Durability.**~~
~~The aggregate shall be from a source approved for Class 2 or better durability, as defined in Article 4115.04.~~

~~**2. Gradation.**~~
~~The gradation shall be as follows:~~

GRADATION	
Sieve No.	**Percent Passing**
3/4" (19 mm)	100
1/2" (12.5 mm)	97-100
3/8" (9.5 mm)	40-90
No. 4 (4.75 mm)	0-30
No. 200 (75 µm)	0-1.5
The maximum percent passing the No. 200 (75 µm) sieve may be increased to 2.5%, provided the documented production limit agreed to and maintained is 1.0% or less and any increase up to 2.5% is due to degradation of the parent material and not to contamination by other material.	

Reason for Revision: Moved aggregate durability class to table in 4115.04

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

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jim Berger / Todd Hanson	**Office:** Materials	**Item 11**
Submittal Date: February 8, 2006	**Proposed Effective Date:** October 2006	
Article No.: 2513.03, B **Title:** Cast-in-Place and Slip Form (Concrete Barriers)	**Other:**	

Specification Committee Action: Approved.

Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: See Reason for Revision.

Specification Section Recommended Text:

2513.03, B. Cast-in-Place and Slip Form.

Delete the last sentence:

~~Class D concrete may be substituted and Section 2403 shall apply.~~

Comments:

Member's Requested Change (Redline/Strikeout):

B. Cast-in-Place and Slip Form.

~~Class D concrete may be substituted and Section 2403 shall apply.~~

Reason for Revision: Delete the last sentence regarding Class D. Class C is required for fixed form and Class BR for slip form rail. This was missed in the last spec change for April 2006.

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:					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jim Berger / Todd Hanson	**Office:** Materials	**Item 12**
Submittal Date: February 9, 2006	**Proposed Effective Date:** October 2006	
Article No.: 2517.02, A **Title:** PCC Paving Projects (Concrete Barrier)	**Other:**	

Specification Committee Action: Approved.

Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: See Reason for Revision.

Specification Section Recommended Text:

2517.02, A, PCC Paving Projects.

Replace the entire article:

The PCC shall be Class C or ~~of~~ the same class as specified for the pavement.

Comments:

Member's Requested Change (Redline/Strikeout):

2517.02 MATERIALS.
Materials for construction of railroad approach sections shall meet requirements of Division 41 for the respective material.

A. PCC Paving Projects.
The PCC shall be Class C or ~~of~~ the same class as specified for the pavement.

Reason for Revision: A mix type needs to be specified when a railroad approach section may be replaced as a stand alone project.

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:					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Bruce Kuehl	**Office:** District 6	**Item 13**
Submittal Date: December 21, 2005	**Proposed Effective Date:** October 2006 GS	
Article No.: 2524.12 **Title:** Method of Measurement and Basis of Payment	**Other:**	

Specification Committee Action: Approved.

Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text:

2524.12, F, Delineators, Milepost Markers, and 6 Inch by 6 Inch (150 mm By 150 mm) Route Markers.

Delete the fourth paragraph:

~~Excavation in unexpected rock for delineators, and milepost marker posts will be paid for as extra work. Unexpected rock will be considered as rock encountered during post erection, but neither visible from the roadway nor indicated in the contract documents.~~

2524.12, G, Excavation in Unexpected Rock.

Add new article:

Excavation in unexpected rock for wood posts for Type A or B signs, steel posts for Type B signs, concrete footings for Type B signs, delineators, and milepost marker posts will be paid for as extra work. Unexpected rock will be considered as rock encountered during post erection, but neither visible from the roadway nor indicated in the contract documents.

Comments: District 6 explained there is nothing in the specifications describing how to pay for excavation of unexpected rock for sign posts and footings. They suggested adding language to Article 2524.12, F. The Office of Contracts suggested maybe this added language should be in a different place since Article 2524.12, F refers specifically to delineators, milepost markers, and 6 inch by 6 inch route markers. The Office of Bridges and Structures suggested including this as a new article.

Specification Section Recommended Text:

2524.12, F, Delineators, Milepost Markers, and 6 Inch by 6 Inch (150 mm By 150 mm) Route Markers.

Replace the first sentence of the fourth paragraph:

Excavation in unexpected rock for wood posts for type A or B signs, steel posts for Type B signs, concrete footings for Type B signs, delineators, and milepost marker posts will be paid for as extra work. Unexpected rock will be considered as rock encountered during post erection, but neither visible from the roadway nor indicated in the contract documents.

Comments:

Member's Requested Change (Redline/Strikeout):

Revise the firsts sentence of the last paragraph of 2524.12 as follows:

Excavation in unexpected rock for wood posts for type A or B signs, steel posts for Type B signs, concrete footings for Type B signs, delineators, and milepost marker posts will be paid for as extra work. Unexpected rock will be considered as rock encountered during post erection, but neither visible from the roadway nor indicated in the contract documents.

Reason for Revision: The contract documents are unclear on payment for unexpected rock excavation for these types of posts and footing. This has been an issue on a number of projects in eastern Iowa.

County or City Input Needed (X one)			**Yes**	**No** X	
Comments: Should not affect many local projects.					
Industry Input Needed (X one)			**Yes**	**No** X	
Industry Notified:	**Yes**	**No** X	**Industry Concurrence:**	**Yes**	**No**
Comments: This revision would clarify how to handle rock excavation and should not create any concerns form industry.					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: John Smythe / Mark Bortle	**Office:** Construction	**Item 14**
Submittal Date:	**Proposed Effective Date:** October 2006 GS	
Article No.: 2528.02 **Title:** Traffic Control, Signs	**Other:**	

Specification Committee Action: Approved.

Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text:

2528.02, Signs.

Replace item 2 following the second paragraph:

2. 3 pounds per foot (4.5 kg/m) U-shaped rail steel ~~posts not exceeding 3.0 pounds per foot (0.3 m).~~

Comments: The Office of Construction explained that 2 pound per foot posts are more subject to wind damage than 3 pound per foot posts. Most posts currently being installed are 2 pound per foot.

The Office of Construction asked whether or not rail steel is required or if other types of steel can be used. The Office of Materials will investigate. They said wording is fine as is; if changes are needed they will submit them.

The Office of Construction asked if accuracy to tenths of an inch is necessary. The Office of Local Systems suggested going with 3 pounds per foot. The committee agreed.

Specification Section Recommended Text:

2528.02, Signs.

Replace item 2 following the second paragraph:

2. 3.0 pounds per foot (4.5 kg/m) U-shaped rail steel ~~posts not exceeding 3.0 pounds per foot (0.3 m).~~

Comments:

Member's Requested Change: **(DO NOT USE "Track Changes," or "Mark-Up". Use ~~Strikeout~~/Highlight)**

Delete the second paragraph of Article 2528.02 and insert the following:

Mounting devices shall not be so substantial as to be a hazard to vehicles. Posts mounted in existing soil shall meet the following requirements:

1. Wood sign supports meeting the materials requirements of Article 4164.04

2. 3.0 pounds per foot (4.5 kg/m) U-shaped rail steel ~~posts not exceeding 3.0 pounds per foot (0.3 m).~~

3. 2 1/4 or 2 1/2 inch (60 mm or 65 mm) square 12 gauge perforated steel tubing.					
Reason for Revision: This change is being proposed due to problems with the existing 2 pounds per foot U-Channel sign posts being a maintenance headache due to their poor ability to keep post mounted signs in the proper alignment during wind situations. 3 pound per foot posts are required by both the South Dakota and Minnesota DOT's and have been used in NW Iowa by out of state traffic control contractors very successfully. They have even withstood winds that have sheared off our wood posts. Either alternate above would be acceptable to the Office of Construction.					
County or City Input Needed (X one)			**Yes**	**No** X	
Comments:					
Industry Input Needed (X one)			**Yes** X	**No**	
Industry Notified:	**Yes** X	**No**	**Industry Concurrence:**	**Yes**	**No**
Comments: The Iowa ATSSA Chapter was invited to solicit input on U-Channel sign posts at their January 31, 2006 meeting. They generally would either prefer to require a 3 pound per foot U-Channel post or allow a lengthy sunset date to use up their existing inventory. A March specification committee approval of this specification for inclusion in the October 17, 2006 GS should allow for a long enough lead time and enough projects to enable traffic control subcontractors to use up their existing stock of 2 pound per foot U-Channel posts.					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Roger Bierbaum	**Office:** Contracts	**Item 15**
Submittal Date: January 19, 2006	**Proposed Effective Date:** October 2006 GS	
Article No.: 2544.05 **Title:** Cleaning and Filling of Cracks	**Other:**	

Specification Committee Action: The committee decided to defer until after input has been received from industry.

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

Specification Committee Approved Text:

Comments: The Office of Contracts suggested the proposed changes to promote consistency. District 6 commented that their maintenance people suggested May 15 to September 30 instead. The Office of Contracts will propose this to industry.

Specification Section Recommended Text:

Comments:

Member's Requested Change: **(DO NOT USE "Track Changes," or "Mark-Up". Use ~~Strikeout~~/Highlight)**

The 2001 Standard Spec Book has the following limitation for Cleaning and Filling of Cracks. The second sentence of the first paragraph of 2544.01 states:

> "Except when this work is in preparation for a seal coat or slurry seal, crack filling may not be allowed on pavements in the months of July and August if tracking or soiling of the pavement becomes a problem."

GS—01002 replaced the second sentence of the first paragraph of 2441.01 with the following:

> "Except when this work is in preparation for a seal coat or slurry seal, crack filling ~~may~~ will not be allowed on pavements ~~in the months of July and August if tracking or soiling of the pavement becomes a problem~~ from June 15 to September 15."

Some districts are modifying the GS with their own district specific limitations (normally not allowing this work to be done between June 15 and September 15). We have received a complaint that all districts should be uniform. Therefore the Office of Contracts is asking the Specification Committee to review what limitations on Cleaning and Filling of Cracks should be included in the next GS which can be used uniformly by all districts.

Reason for Revision: Lack of uniformity between districts

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

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

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jim Berger / Todd Hanson	**Office:** Materials	**Item 16**
Submittal Date: January 4, 2006	**Proposed Effective Date:** October 2006	
Article No.: 4108.01 **Title:** Mineral Admixtures	**Other:**	

Specification Committee Action: Approved.			
Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: The Office of Materials noted that this is standard practice for surrounding states. Approval for substitution would be on a case-by-case basis.

Specification Section Recommended Text:

4108.01, Description.

Add as the second paragraph:

When Class F is required, a Class C fly ash with minimum total oxides ($SiO_2 + Al_2O_3 + Fe_2O_3$) of 66% and minimum SiO_2 of 38% may be used.

Comments:

Member's Requested Change (Redline/Strikeout):

Section 4108. Mineral Admixtures.

4108.01 DESCRIPTION.
Fly ash to be substituted for Portland cement in concrete shall comply with AASHTO M 295, either Class F or Class C, including the Supplementary Optional Chemical Requirements. Sources with fly ash between 1.5% and 2.5% available alkalies may be approved. For Class C fly ash, the pozzolanic activity test with lime will not be required.

When Class F is required, a Class C fly ash with a minimum total oxides ($SiO_2 + Al_2O_3 + Fe_2O_3$) of 66% and a minimum SiO_2 of 38% may be used.

Approval of the source of fly ash will be required. This is to be based on fly ash produced when the power plant is using specific materials, equipment, and processes. Any change in materials, equipment, and processes shall void the source approval, and a new approval of the source will be required.

Inspection and acceptance of fly ash will be in accordance with Materials I.M. 491.17.

Ground Granulated Blast Furnace Slag (GGBFS) to be substituted for Portland cement in concrete shall comply with ASTM C 989 Grade 100 or Grade 120. Approval of the source of GGBFS will be required. Inspection and acceptance of GGBFS will be in accordance with Materials I.M. 491.14.

Reason for Revision: To allow the lignite coal Class C fly ash source to be utilized when Class F is required. Class C sources with these limits have similar characteristics as Class F sources. There are limited sources of Class F fly ash available and this will help with supply, since Class F fly ash is now required when Class V gravels (Article 4117) are used. Similar specifications allow use in Minnesota, South Dakota, North Dakota, and Nebraska.					
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:					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jim Berger, Bob Dawson / Todd Hanson	**Office: Materials**	**Item 17**
Submittal Date: February 9, 2006	**Proposed Effective Date:** October 2006	
Article No.: Section 4115.04 & 4115.05 **Title:** Coarse Aggregate for Concrete	**Other:**	

Specification Committee Action: Deferred. This item needs further review.

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

Specification Committee Approved Text:

Comments: The Office of Construction asked if Finish Patches should still be included in table. The Office of Bridges and Structures asked if prestressed concrete piles should use Class 2, or if they should be included with prestressed units with Class 3 durability. The Office of Materials will look into this.

The Office of Construction asked if the note at the end of Table 4115.04 is needed. They noted that aggregate durability isn't included in plans and may impossible to determine. They will investigate this further.

The Specifications Section added that a note needs to be added to define "Other".

The Office of Materials recommended deferring this item to the next meeting.

Specification Section Recommended Text:

4115.04, Aggregate Use Durability Requirements:

Replace Table 4115.04:

TABLE 4115.04 Aggregate use durability requirements.

Specification Number	Minimum Durability Class Required			Use
	3i	3	2	
2122, 2201, 2212, 2213 Interstate Primary Other*	X*	X*	X	PCC Paved Shoulders, Base, Base Repair, Base Widening
2301, 2302, 2310, 2529, 2530 Interstate Primary Other*	X*	X*	X	PCC Pavement, Widening, ~~Bonded~~ PCC Overlay, ~~Finish~~ Patches, and Bridge Approaches
2403			X	Structural Concrete
2405 (See 2403)			X	Foundations and Substructures
2406 (See 2403)			X	Concrete Structures
2407			X	Precast Units
2407		X		Prestressed Units

2412 (See 2403)			X	Concrete Bridge Floors
2413 (See 2413.02A)			X	Surfacing, Repair & Overlay of Bridge Floors
2414 (See 2403)			X	Concrete Railings
2415 (See 2403)			X	Concrete Box, Arch & Circular Culverts
2416 (See 4145)			X	Rigid Pipe Culverts
2424			X	Shotcrete
2501 (See 2407)			X	Concrete Piles & Sheet Piles
2503 (See 2r403)			X	Storm Sewers (Catch Basins, Intakes & Utility Access)
2504 (See 2403)			X	Sanitary Sewers (Utility Access)
2505 (See 2403)			X	Guardrails (Concrete End Anchorage)
2511, 2515 (See 2403)			*	PCC Sidewalks, Paved Driveways
2512 (See 2403)			*	PCC Curb & Gutter
2513 (See 2403)			X	Concrete Barrier
2516 (See 2403)			X	Concrete Walls and Steps
2517 Primary Other		X	 X	Railroad Approach Sections
2522 (See 2403)			X	Tower Lighting (Concrete Footings & Foundations)
2523 (See 2403)			X	Highway Lighting (Concrete Footings & Foundations)
2524 (See 2403)			X	Highway Signing (Concrete Footings & Foundations)
2525 (See 2403)			X	Traffic Signals (Concrete Footings & Foundations)

Notes:

* For PCC base repair, pavement repair, sidewalks and curb and gutters, Class 2 durability or better aggregate will be required if the existing pavement was constructed of Class 2 or lower durability aggregate. If the existing pavement was constructed of Class 3 or Class 3i durability aggregate, the aggregate used in the repair shall be Class 3 or better and Class 3i, respectively.

4115.05, COARSE AGGREGATE FOR SURFACING AND REPAIR AND OVERLAY.

Replace the title:

4115.05, COARSE AGGREGATE FOR BRIDGE DECK SURFACING AND REPAIR AND OVERLAY.

Comments:

Member's Requested Change (Redline/Strikeout):

4115.04 AGGREGATE USE DURABILITY REQUIREMENTS.

TABLE 4115.04 Aggregate use durability requirements.

Specification Number	Minimum Durability Class Required			Use
	3i	3	2	
2122, 2201, 2212, 2213 Interstate Primary Other*	X*	X*	X	PCC Paved Shoulders, Base, Base Repair, Base Widening
2301, 2302, 2310, 2529, 2530 Interstate Primary Other*	X*	X*	X	PCC Pavement, Widening, ~~Bonded~~ PCC Overlay, ~~Finish~~ Patches, and Bridge Approaches
2403			X	Structural Concrete
2405 (See 2403)			X	Foundations and Substructures
2406 (See 2403)			X	Concrete Structures
2407			X	Precast Units
2407		X		Prestressed Units
2412 (See 2403)			X	Concrete Bridge Floors
2413 (See 2413.02A)			X	Surfacing, Repair & Overlay of Bridge Floors
2414 (See 2403)			X	Concrete Railings
2415 (See 2403)			X	Concrete Box, Arch & Circular Culverts
2416 (See 4145)			X	Rigid Pipe Culverts
2424			X	Shotcrete
2501 (See 2407)			X	Concrete Piles & Sheet Piles
2503 (See 2403)			X	Storm Sewers (Catch Basins, Intakes & Utility Access)
2504 (See 2403)			X	Sanitary Sewers (Utility Access)
2505 (See 2403)			X	Guardrails (Concrete End Anchorage)
2511, 2515 (See 2403)			*	PCC Sidewalks, Paved Driveways
2512 (See 2403)			*	PCC Curb & Gutter
2513 (See 2403)			X	Concrete Barrier
2516 (See 2403)			X	Concrete Walls and Steps
2517 Primary		X		Railroad Approach Sections

2522 (See 2403)			X	Tower Lighting (Concrete Footings & Foundations)
2523 (See 2403)			X	Highway Lighting (Concrete Footings & Foundations)
2524 (See 2403)			X	Highway Signing (Concrete Footings & Foundations)
2525 (See 2403)			X	Traffic Signals (Concrete Footings & Foundations)

Notes:
* For PCC base repair, pavement repair, sidewalks and curb and gutters, Class 2 durability or better aggregate will be required if the existing pavement was constructed of Class 2 or lower durability aggregate. If the existing pavement was constructed of Class 3 or Class 3i durability aggregate, the aggregate used in the repair shall be Class 3 or better and Class 3i, respectively.

4115.05 COARSE AGGREGATE FOR BRIDGE DECK SURFACING AND REPAIR AND OVERLAY.
Acquire from a Class 2 durability or better source meeting the following requirements:

Reason for Revision:

Format problem on Interstate, Primary, and Other. Change 2310 from Bonded overlays to PCC overlays. Add missing work types that do not include aggregate durability class in the Article.

4115.05 need to add Bridge Deck to title so not to confuse with a PCC pavement overlay, since the description was omitted by imperative mood rewrite.

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:					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jim Berger / Mahbub Khoda	**Office:** Materials	**Item 18**
Submittal Date: August 15, 2005	**Proposed Effective Date:** October 2006	
Article No.: 4145.06, F **Title:** Lift Holes (Concrete Culvert Pipe)	**Other:**	

Specification Committee Action: Approved.

Deferred:	**Not Approved:**	**Approved Date:** 3/9/06	**Effective Date:** 10/17/06

Specification Committee Approved Text:

Comments: See Reason for Revision.

Specification Section Recommended Text:

4145.06, F, Lift Holes.

Add as the second paragraph:Cutting of circumferential wire in lift hole locations will be permitted if the pipe satisfies the 0.01 inch crack test requirements of AASHTO M 170/170 M for the specified class of pipe.

Comments:

Member's Requested Change (Redline/Strikeout):

F. Lift Holes.
When requested by the Contractor, pipe may be furnished with not more than two lift holes. Lift holes shall not be larger than 2 1/2 inches (65 mm) in diameter and shall be cast or formed in a manner so that there are no breaks of the circumferential reinforcing of single cage reinforced pipe or of the inner cage of double cage reinforced pipe. When practicable, circumferential wires will be bent slightly to provide for the lift holes.

Cutting of circumferential wire in lift hole locations will be permitted if the pipe with the cut circumferential wire satisfies the 0.01 inch crack test requirements of AASHTO M 170/170 M for the specified class of pipe.

Reason for Revision: Practically for the larger pipe sizes, bending the wire is almost impossible. Cutting the wire at the lift hole will help the safe handling of the pipe and the 0.01 crack testing will reconfirm the strength of the pipe.

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

Industry Input Needed (X one)			**Yes** X	**No**	
Industry Notified:	**Yes** X	**No**	**Industry Concurrence:**	**Yes** X	**No**
Comments: Requested by the Industry.					