Iowa Department of Transportation

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

October 13, 2011

Members Present:	Jim Berger	Office of Materials
	Eric Johnsen, Secretary	Specifications Section
	Bruce Kuehl	District 6 - Construction
	Doug McDonald	District 1 - Marshalltown RCE
	Dan Redmond	District 4 - Materials
	Tom Reis, Chair	Specifications Section
	John Smythe	Office of Construction
Members Not Present:	Roger Bierbaum	Office of Contracts
	Donna Buchwald	Office of Local Systems
	Deanna Maifield	Office of Design
	Gary Novey	Office of Bridges & Structures
	John Selmer	Statewide Operations Bureau
	Willy Sorensen	Office of Traffic & Safety
Advisory Members Present:	Max Grogg	FHWA
Others Present:	Ahmad Abu-Hawash	Office of Bridges & Structures
	Ed Kasper	Office of Contracts
	Wes Mayberry	Office of Design

Tom Reis, Specifications Engineer, opened the meeting. The following items were discussed in accordance with the revised agenda dated October 7, 2011:

1. Section 1106, Control of Materials.

The Office of Design requested changes to add language regarding waste disposal to the specifications to replace a Standard Plan Note that is frequently used.

2. Section 1113, Hourly Lane Rental (A+B Bidding with Incentive/Disincentive).

The Office of Contracts requested changes to replace hourly lane rental specifications with a DS for daily lane rental.

3. Article 2102.03, F, Borrow (Roadway and Borrow Excavation).

The Office of Construction requested changes to clarify borrow types and submittal requirements for alternate borrows.

4. Article 2402.04, Method of Measurement (Excavation for Structures).
Article 2405.03, Construction (Foundations and Substructures).

The Office of Construction requested changes to increase the horizontal limits of excavation to allow room outside of the footing for water management.

5. **Article 2403.05, Basis of Payment (Structural Concrete)**.

The Office of Construction requested changes to clarify that heating frozen soil or protecting soil from freezing prior to concrete placement is an incidental item.

6. **Section 2501, Piles and Pile Driving**.

The Office of Construction requested changes to clarify the MOM and BOP for pile extensions and splices.

7. **Section 2529, Full Depth Finish Patches**.

The Office of Construction requested changes to reflect changes to be made to Standard Road Plan RR-1, which include adding subgrade stabilization material.

8. **Article 2530.03, C, Limitations of Operations (Partial Depth Finish Patches)**.

The Office of Construction requested changes to replace outdated language in the specification.

9. **Section 2532, Pavement Surface Repair (Diamond Grinding)**.

The Office of Construction requested changes proposed by the industry.

10. **Article 4130.01, B (Revetment Stone and Erosion Stone)**.

The District 4 Materials Office requested changes to eliminate unnecessary specification language.

11. **Article 4184.01 , Description (Reflectorizing Spheres for Traffic Paint).**

The Office of Materials requests changeed due to an AASHTO recommendation.

12. **Article 4186.12, B (Guardrail Markers and Barrier Markers).**

The Office of Design requested changes due to voiding a Standard Plan Note.

13. **DS-09XXX, On-Call Contracting for High Tension Cable Guardrail Repair**.

The Office of Contracts requested approval of Developmental Specifications for On-Call Contracting for High Tension Cable Guardrail Repair.

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Deanna Maifield	**Office:** Design	**Item 1**
Submittal Date: 2011.09.29	**Proposed Effective Date:** 4/17/12	
Section No.: 1106 **Title:** Control of Materials	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2011	**Effective Date:** 4/17/2012

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

1106, Control of Materials.

Add the Article:

1106.07, Waste.

The Contractor shall provide waste areas or disposal sites for excess material (excavated material or broken concrete) not desirable to be incorporated into the work. The Contractor shall ensure areas (including haul roads) selected for waste or disposal do not impact:

- Culturally sensitive sites or graves.
- Wetlands or "Waters of the U.S.", including streams or stream banks below the "ordinary high water mark", without an approved U.S. Army Corps of Engineers Section 404 Permit.

No payment for overhaul will be allowed for material hauled to these sites. Excess material shall not be placed within the right-of-way unless specifically stated on the plans.

Comments:

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

1106.07, Waste.

Add as a new article:

The Contractor shall be responsible for providing waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project. The Contractor shall ensure that areas (including haul roads) selected for waste or disposal do not impact:

- Culturally sensitive sites or graves.
- Wetlands or "Waters of the U.S.", including streams or stream banks below the "ordinary high water mark", without an approved U.S. Army Corps of Engineers Section 404 Permit.

No payment for overhaul will be allowed for material hauled to these sites. No excess material shall be placed within the right-of-way unless specifically stated in the plans.

Reason for Revision: The proposed changes consist of language currently contained in Standard Note 213-1. This note is used extensively. The Office of Design is proposing this language be added (and updated if needed) to the Standard Specifications.

213-1
04-15-08

WASTE
(NON-DESIRABLE MATERIAL)

It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project.

It shall be the contractor's responsibility to ensure that areas (including haul roads) selected for waste or disposal not impact 1) culturally sensitive sites or graves or 2) wetlands or "Waters of the U.S.", including streams or stream banks below the "ordinary high water mark", without an approved U.S. Army Corps of Engineers Section 404 Permit.

No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans.

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: Roger Bierbaum	**Office:** Contracts	**Item 2**
Submittal Date: August 31, 2011	**Proposed Effective Date:** December 2011	
Section No.: 1113 **Title:** Hourly Lane Rental (A+B Bidding with Incentive/Disincentive)	**Other:**	

Specification Committee Action: Deferred until the Offices of Construction and Contracts can work through the specification.

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

Specification Committee Approved Text:

Comments: The Office of Contracts felt that the draft DS submitted was not the most current revision.

The Specifications Section asked if this specification should be a DS or an SS. The Office of Contracts would like it to be a DS so that Roger Bierbaum can be the controller.

Specification Section Recommended Text: See attached Draft Developmental Specifications for Lane Rental (A + B Bidding with Incentive/Disincentive).

Comments: The Specifications Section recommends use of a Supplemental Specification rather than a Developmental Specification.

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

Delete Article 1113 of the Standard Specifications and use a DS based on the attached draft

Reason for Revision: We have been directed to use contract acceleration clauses to minimize traffic inference on Interstate projects. The Lane Rental incorporated into the Standard Specifications was base on a lane rental SP that was developed for use for hourly lane rental. In most cases is desired to have a daily lane rental rather than an hourly lane rental. The revised specification also removes the language for extraordinary circumstances. It is desired to initially use the specification as a DS as we anticipate there will be evolution as the specification is used.

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:					

DRAFT DS-090XX
(New)

Iowa Department of Transportation

DEVELOPMENTAL SPECIFICATIONS
FOR
LANE RENTAL (A + B BIDDING WITH INCENTIVE/DISINCENTIVE)

Effective Date
December 20, 2011

THE STANDARD SPECIFICATIONS, SERIES 2009, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

Replace Section 1113 of the Standard Specifications with the following:

1113.01 GENERAL.
The determination of the low bidder involves a combination of the contract sum and the bidder's proposed time to complete the work designated as the A+B portion ~~of this project~~ when lane rental is included in the contract documents. These specifications also describe lane rental procedures with incentive/disincentive under which the Contractor will be assessed a rental rate for each lane closure. Rental days will be used for bidding purposes; however, charging of rental time will be based on a rental hour.

Article 1108.02, K, shall apply to contracts with lane rental unless there are work restrictions included in the contract documents.

1113.02 DEFINITION OF TERMS.

A. Rental Day.
For bidding purposes only, a rental day is equal to 24 rental hours. The bidder shall bid rental days in whole numbers.

~~**B. Hourly Rental Rate.**~~

~~**1.** The amount, as determined by the Contracting Authority and shown in the proposal form, which represents the average hourly cost of interference and inconvenience to the road user for each lane closure.~~

~~**2.** The proposal form may identify separate peak, non-peak, and shoulder rental rates. Unless otherwise stated in the contract documents, the peak rate will be between 6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m.; the non-peak rate will be all other hours. The shoulder rate will occur whenever a shoulder is closed.~~

~~**C. Rental Hour.**~~
~~Any 60 minute period or portion of a 60 minute period beginning at the time a lane or shoulder is closed by the Contractor's operation.~~

1113.03 PREPARATION OF PROPOSAL.
The bidder shall ~~calculate the number of rental days from the number of rental hours~~ compute the lane rental durations they estimate ~~using~~ are needed to complete the work required under the A+B portion of this project.

1113.04 CONSIDERATION OF BIDS.

A. Each bid submitted shall consist of two parts:

(A) The contract sum.
(B) Total number of rental days proposed by the bidder. The bidder shall enter the number of rental days on the proposal form.

B. The bid amount for award consideration will be determined by the following formula:
(A) + [(B) x (Daily Road User Cost)] = Bid amount for award consideration.

1113.05 CHARGING OF CONTRACT TIME.

A. The proposal form will identify the portions (geographic section of traffic stage) of the project for which lane rental applies.

B. ~~The proposal form will also include working days to complete work not requiring a lane closure. These working days will be charged according to Article 1108.02, D.~~ The working days will be assessed based on ~~a separate~~ the controlling operation ~~for the items of work that do not require a lane closure~~ of the contract and will include working days needed for lane closures.

C. The Contractor shall record the time a lane ~~or shoulder~~ is closed, whether work is being performed or not. The Contractor shall submit to the Engineer, in writing, a log of lane closure activity. This report shall be submitted to the Engineer daily (reporting the previous day's activities) and shall include station location (beginning and ending), direction and number of lanes ~~of~~ for every closure, and hours of use (beginning time, ending time, and total hours per closure). This report shall also include a written statement of any objections to rental hours or rates charged.

D. A lane closure will be identified as any of the following instances:

- Lane closure commencing with a taper or when access to a lane is denied continuing through the ending taper,
- Access is denied to a turning lane (left or right), ~~or~~
- Ramp closure (does not include narrowing of a ramp where traffic is allowed access), or
- Shoulder closure when specifically noted in the contract documents.

E. Rental periods for multiple lane closures, both longitudinally and transversely, will be assessed simultaneously for each lane that is closed. Lane rental will not be charged for shoulder closures ~~that are~~ adjacent to lane closures. ~~Turn lane closures will be counted when a turn lane is not available to turning traffic.~~ When a ramp is closed, each lane closed on the ramp will be assessed independently. ~~Rental periods for shoulder closures will be assessed independent of lane closures.~~

F. Lane closures will be counted based on the number of locations a lane is closed. The Contractor shall not extend the length of a lane closure beyond the length needed to perform the work.

1113.06 LANE RENTAL PAYMENT OR ASSESSMENT.
Lane rental payment or assessment will be as follows:

A. Incentive Payment.
The Contractor will be paid an amount equal to the ~~hourly~~ predetermined daily rental rate multiplied by the time remaining if the time used is less than the time bid. Maximum incentive payment will not exceed the amount specified on the proposal form. If not shown, there will be no maximum amount for incentive payment. ~~Incentive payments will be made in accordance with Article 1109.09.~~

B. Disincentive Assessment.
The Contractor will be assessed an amount equal to the ~~hourly~~ predetermined daily rental rate multiplied by the time used that is in excess of the time bid. There will be no maximum amount for the disincentive assessment.

1113.07 CONSIDERATION FOR EXTRA WORK OR DELAYS DURING LANE RENTAL CHARGES.

~~**A. Lane Rental by Hour.**~~
~~No consideration for additional time will be considered for the first 10 consecutive hours of delay for each extraordinary circumstance. The Contractor will be responsible for obtaining necessary weather forecasts prior to the lane or shoulder closure.~~

~~**B. Additional Time.**~~
~~Additional time will be given by the Engineer for extra work, overruns of contract items, or extraordinary circumstances meeting the following requirements:~~

1. Approved extra work or overruns of contract items that extend the duration of the closure shall be documented and included in the critical path of the project. The revised critical path diagram shall be submitted to the Engineer for approval.

2. Non-weather related extraordinary circumstances that delay the Contractor during the lane closure shall be documented by the Contractor and a written request for additional closure time shall be submitted to the Engineer within 72 hours of the beginning of the delay. The Engineer will approve or deny all requests for additional closure time resulting from non-weather related extraordinary circumstances. Non-weather related extraordinary circumstances will be limited to the following:

a. Strikes.

Strikes which are not directed against the Contractor.

b. Legal Stoppages.

Legal Stoppages will be allowed if they result from legal action against the Contracting Authority or against the Contractor if not based on a specification violation.

c. Late Delivery of Material.

Procurement of material for a project is the sole responsibility of the Contractor. Late delivery will be considered an extraordinary circumstance only when the Contractor can show that orders were placed with a reliable supplier in sufficient time for materials to be delivered when needed and only when there is:

1) A nationwide shortage; or
2) An industry wide strike; or
3) Transportation strike which delays the delivery of material; or
4) Delays due to a change in material commitments when caused by a Federal emergency or order.

d. Natural Disaster.

A suspension order may be issued on any project in a declared disaster area, if the disaster causes conditions that do not allow productive work.

3. Adverse weather related extraordinary circumstances including rain, snow, wind, flood, and the results thereof, such as inaccessibility or non-workability of materials, is only considered as extraordinary circumstance if the Contractor is ready to work on the contract and the adverse weather conditions do not allow productive work on the critical path. Adverse weather that delays the Contractor during the lane closure shall be documented by the Contractor and a written request for additional closure time shall be submitted to the Engineer within 72 hours of the beginning of the delay.

Additional lane rental time will be granted by the Engineer for extra work or overruns of contract items that extend the duration of closure, if documented by the Contractor and requested when the extra work or overrun occurs. No consideration for additional time will be considered for other circumstances extending the duration of a lane closure. The Contractor will be responsible for obtaining weather forecasts prior to lane or shoulder closures to limit the duration of closures.

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: John Smythe / Melissa Serio	**Office:** Construction	**Item 3**
Submittal Date: September 26, 2011	**Proposed Effective Date:** April 17, 2012	
Article No.: 2102.03, F **Title:** Borrow (Roadway and Borrow Excavation)	**Other:**	

Specification Committee Action: Approved with changes.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2011	**Effective Date:** 4/17/2012

Specification Committee Approved Text:

2102.03, F, Borrow.

Replace the Article:

1. General.

a. Unless provided otherwise in the contract documents, when the quantity of material required for embankments is not available within the limits of the roadway cross sections or specific borrow areas as indicated, make up the deficiency from borrow areas the Contracting Authority provides and defines on the plans or furnish equivalent material from alternate borrow areas (in lieu of plan borrows) or Contractor furnished borrow.

b. The following definitions apply to this specification:

1) Designated Borrow Areas.
A general term for borrow areas the Contracting Authority provides; including mandatory and optional borrow areas.

~~1~~a) Mandatory Borrow Areas.
Areas provided by the Contracting Authority from which the Contractor is expected to obtain borrow material and to operate in the area according to the contract documents. Mandatory borrow areas will be designated in the contract documents.

~~2~~b) Optional Borrow Areas.
Areas provided by the Contracting Authority from which the Contractor may obtain borrow material. If so obtained, the Contractor is expected to operate in the area according to the contract documents. Borrow areas are optional borrow areas unless specifically designated as mandatory borrow areas.

~~3~~2) Alternate Borrow Areas.
Areas outside the highway right-of-way provided ~~or to be provided~~ by the Contractor from which the Contractor may obtain borrow material~~.~~ in lieu of designated borrow areas and to be used ~~Use~~ according to the contract documents. ~~The Contractor is responsible for obtaining all rights associated with this area and for use of this material.~~

~~**4) Designated Borrow Area.**~~
~~A general term for borrow areas the Contracting Authority provides, including mandatory and optional borrow areas.~~

3) Contractor Furnished Borrow.
A general term for borrow material provided by the Contractor. The type of material shall be as specified in the contract documents. If the type of material is not specified, provide Suitable Soils. Contractor may elect to provide Select Treatment Material in lieu of Suitable Soils.

c. ~~Provide~~ Upon completion, excavate borrow areas that are sufficiently regular in cross section to permit accurate measurement. Carefully blend to natural land forms and avoid unnecessary damage to the land. Do not turn natural drainage of surface water on to adjoining owners. Use diligence in draining the surface water in its natural course or channel. Complete excavation consistent with the existing natural drainage conditions or as shown in the contract documents.

d. Where a mandatory borrow area is designated in the contract documents, it is

mandatory that borrow material be obtained from the borrow location designated and in accordance with the borrow design on the contract documents, unless permission is obtained from the Engineer to obtain borrow from another location.

e. Unless the contract documents designate borrow areas as mandatory borrow areas, borrow areas will be considered optional borrow areas. The Contractor has the option of either using the optional borrow areas or proposing to furnish equivalent material from alternate borrow areas.

~~**f.** The Contractor may be required to compensate the Contracting Authority for material removed from optional borrow areas. If so, the rate of compensation per cubic yard (cubic meter) to be charged will be shown in the contract documents. Compensation will not be required for topsoil that is removed and replaced. Compensation will be based on quantities shown in the contract documents, as corrected. However, when only a portion of the designated quantity is taken from the area, the quantity will be calculated from cross section measurements. When the contract documents do not identify an amount per cubic yard (cubic meter) for compensation, the material in the optional borrow area is available to the Contractor at no cost.~~

2. Contactor's Plan Submittals.

a. ~~When specified in the contract documents, s~~Submit a plan to the Engineer for use of ~~all~~ proposed alternate ~~borrow areas . Include in this plan~~ or designated borrow ~~areas that are~~ intended to be used in a manner different from that shown in the contract documents. Also, ~~when required,~~ sample the proposed alternate borrow areas by core drilling or test pits. When the Contracting Authority determines it is necessary, sample in the presence of ~~a representative from the Office of Design, Soils Design Section~~ the Engineer. Test samples and ~~P~~provide results and verification samples to the Contracting Authority ~~this representative for the Department to test. A minimum of 10 working days is necessary for this testing~~.

b. ~~A plan for use of alternate borrow areas may be submitted only once.~~ The submission for use of alternate borrow areas shall include all such areas necessary or contemplated for completion of the planned work.

~~**c.** Generally, optional borrow areas shall be used as intended or not at all. Obtain the Engineer's approval before using an optional borrow area in a manner different from that shown in the contract documents.~~

~~**d**~~**c.** Approval of materials and their use will be based on AASHTO M 145-91 and includes the following:

1) Select Treatment Materials.

a) The Engineer's approval is required for all soils required for select subgrade treatments. The Contractor may elect to substitute with special backfill material ~~(Section 4132)~~ or modified subbase material at one-half the required rate at no additional cost to the Contracting Authority. If special backfill material or modified subbase material is ~~substituted~~ used in lieu of select material, the Contractor shall provide for suitable surface and subsurface drainage of this material and provide suitable soils in lower portion of original subgrade treatment layer at no additional cost to the Contracting Authority.

(1) Cohesive Soils.
Meet the requirements of Article 2102.02, D, 1, a.

(2) Granular Soils.
Meet the requirements of Article 2102.02, D, 1, b.

(3) Special Backfill Material.
Meet the requirements of Section 4132.

(4) Modified Subbase Material.
Meet the requirements of Section 4123.

b) Use select treatment sources with sufficient uniformity and size to assure that complete individual treatment areas will be constructed with similar material. Substitution of treatment types (cohesive, granular, ~~or~~ special backfill, or modified subbase material) will be allowed only with the Engineer's permission.

2) Suitable Soils.
Meet the requirements of Article 2102.02, D, 2.

3) Unsuitable Soils.
Meet the requirements of Article 2102.02, D, 3.

4) Other Materials.
Place materials not covered above as required by Standard Specifications.

d. The Engineer may decline approval of an alternate borrow area when:

1) Necessary clearances cannot be obtained prior to the time scheduled for commencement of work.

2) Restrictions attached to clearances will delay or interfere with scheduled completion of work or may result in less than necessary quantities of required borrow materials.

3) Contractor's plan for use of borrow areas, including Contractor's verification of quantity and quality of required material, is not sufficient to assure availability of required material.

4) Contractor's proposed plans fail to meet requirements of the contract documents.

e. The Engineer will be allowed time to evaluate each alternate borrow area. If the clearance is not obtained within 30 calendar days, the proposed use of that borrow area may be rejected. During this evaluation period, the Contractor will not be charged for working days the Contractor does not work because the Contractor cannot use the borrow area.

f. The maximum allowance for each contract is not to exceed 30 working days. This allowance will not apply to work for which an intermediate completion time is specified. It will be given only when the delay will not interfere with others authorized to work on the project. It does not increase the Engineer's responsibility to provide coordination.

g. The Contracting Authority will not be responsible for damages due to a delay in approval of an alternate borrow area or when approval of an alternate borrow area is declined.

3. Contractor Provided Clearances.

~~**a.**~~ Obtain and provide Engineer necessary environmental, archaeological, and historic preservation clearances and comply with all restrictions attached to these clearances for alternate borrow areas and sites where Contractor furnished borrow is obtained. ~~The Engineer will provide assistance in identification of permit procedures and expediting consideration of these requests.~~ Obtain other licenses and permits ~~and comply with all other Federal, State, and local laws, ordinances, rules, and regulations~~ involved in the proposed use of these ~~alternate borrow~~ areas.

~~**b. The Engineer may decline approval of an alternate borrow area when:**~~

~~**1) Necessary clearances cannot be obtained prior to the time scheduled for commencement of the work.**~~

~~**2) Restrictions attached to these clearances will delay or interfere with the scheduled completion of work or may result in less than necessary quantities of the required borrow materials.**~~

~~**3) The Contractor's plan for the use of borrow areas, including the Contractor's verification of quantity and quality of required material, is not sufficient to assure the availability of required material.**~~

~~**4) The Contractor's proposed plans fail to meet requirements of the law or this specification.**~~

~~**c. The Contracting Authority will not be responsible for damages due to a delay in approval of an alternate borrow area or when approval of an alternate borrow area is declined.**~~

4. Restoration.

a. Optional borrow areas shown on the Contractor's plan shall be left in at least as good a condition as that required by the contract documents for designated borrow areas. This applies whether all or only a part of the site or the material is used for borrow.

b. Use and rehabilitate optional borrow areas and~~, unless the landowner consents and~~

~~agrees otherwise,~~ alternate borrow areas (unless Contractor and landowner have agreed to the final design of the alternate borrow area) so that:

1) The sites can continue to be used for the purpose for which they were used prior to removal of borrow.

2) The sites may still be used for those higher and more profitable or better potential uses to which the site might have been put to prior to removal of borrow material.

c. The Engineer will require restoration according to 314.12, Code of Iowa, to meet the above requirement. The overall Contractor's plan shall neither detract from nor interfere with the air, light, and view of motorists nor of adjacent landowners.

5. Obligations and Payment.

Use of an alternate borrow area shall not increase future obligations or total cost to the Contracting Authority. Complete all excavation from the roadway and the mandatory borrow areas.

~~**6. Consideration of Proposal.**~~

~~**a.** The Engineer will be allowed time to evaluate each alternate borrow area. If the clearance is not obtained within 30 calendar days, the proposed use of that borrow area may be rejected. During this evaluation period, the Contractor will not be charged for working days the Contractor does not work because the Contractor cannot use the borrow area.~~

~~**b.** The maximum allowance for each contract is not to exceed 30 working days. This allowance will not apply to work for which an intermediate completion time is specified. It will be given only when the delay will not interfere with others authorized to work on the project. It does not increase the Engineer's responsibility to provide coordination.~~

7. Starting Work.

Except for exploratory purposes, do not start work and take material from an alternate borrow or a Contractor furnished borrow area until after:

- The Engineer approves the borrow proposal in writing, and
- Providing the Engineer with a written release executed by the property owner and the Contractor relieving the Contracting Authority of any and all obligations to the property owner and saving the Contracting Authority harmless from all claims for injury to persons or damage to property resulting from the Contractor's operations.

8. Material Verification.

Material supplied from alternate borrow areas or Contractor furnished borrow may be verified by the Contracting Authority for compliance with these requirements. When testing by the Contracting Authority is required, a minimum of 10 working days is necessary for testing. When the Engineer orders, remove and replace material verified not in close compliance with these requirements, at no additional cost to the Contracting Authority.

Comments: The Specifications Section requested changes to Article 2102.03, F, 2, a to reflect use of the specification by local systems.

The FHWA asked if the new Articles 2102.03, F, 2, d and e were in the correct place or should be moved to Article 2102.03, F, 6. Article 2102.03, F, 6 will be moved to Article 2102.03, F, 2.

Responsibility for obtaining rights and clearances was eliminated from the borrow definitions and will remain in Article 2102.03, F, 3, Contractor Provided Clearances. Requirement in Article 2102.03, F, 3 to meet "laws, ordinances, rules, and regulations" was eliminated, as this language is part of Division 11.

Specification Section Recommended Text:

2102.03, F, Borrow.

Replace the Article:

1. General.

a. Unless provided otherwise in the contract documents, when the quantity of material

required for embankments is not available within the limits of the roadway cross sections or specific borrow areas as indicated, make up the deficiency from borrow areas the Contracting Authority provides and defines in the plans or furnish equivalent material from alternate borrow areas (in lieu of plan borrows) or contractor furnished borrow.

b. The following definitions apply to this specification:

1) Designated Borrow Area.

A general term for borrow areas the Contracting Authority provides, including mandatory and optional borrow areas.

~~**1a)**~~ **Mandatory Borrow Areas.**

An area provided by the Contracting Authority from which the Contractor is expected to obtain borrow material and to operate in the area according to the contract documents. Mandatory borrow areas will be designated in the contract documents.

~~**2b)**~~ **Optional Borrow Area.**

An area provided by the Contracting Authority from which the Contractor may obtain borrow material. If so obtained, the Contractor is expected to operate in the area according to the contract documents. Borrow areas are optional borrow areas unless specifically designated as mandatory borrow areas.

~~**32)**~~ **Alternate Borrow Areas.**

An area outside the highway right-of-way provided or to be provided by the Contractor from which the Contractor may obtain borrow material~~.~~ in lieu of designated borrow areas and to be used ~~Use~~ according to the contract documents. The Contractor is responsible for obtaining all rights, clearances, and permits associated with this area and for use of this material.

~~**4) Designated Borrow Area.**~~

~~A general term for borrow areas the Contracting Authority provides, including mandatory and optional borrow areas.~~

3) Contractor Furnished Borrow

A general term for borrow material provided by the Contractor. The type of material shall be as specified in the contract documents. If the type of material is not specified, provide Suitable Soils. Contractor may elect to provide Select Treatment Material in lieu of Suitable Soils.

c. ~~Provide~~ Upon completion, excavate borrow areas that are sufficiently regular in cross section to permit accurate measurement. Carefully blend to natural land forms and avoid unnecessary damage to the land. Do not turn natural drainage of surface water on to adjoining owners. Use diligence in draining the surface water in its natural course or channel. Complete excavation consistent with the existing natural drainage conditions or as shown in the contract documents.

d. Where a mandatory borrow area is designated in the contract documents, it is mandatory that borrow material be obtained from the borrow location designated and in accordance with the borrow design in the contract documents, unless permission is obtained from the Engineer to obtain borrow from another location.

e. Unless the contract documents designate borrow areas as mandatory borrow areas, borrow areas will be considered optional borrow areas. The Contractor has the option of either using the optional borrow areas or proposing to furnish equivalent material from alternate borrow areas.

~~**f.** The Contractor may be required to compensate the Contracting Authority for material removed from optional borrow areas. If so, the rate of compensation per cubic yard (cubic meter) to be charged will be shown in the contract documents. Compensation will not be required for topsoil that is removed and replaced. Compensation will be based on quantities shown in the contract documents, as corrected. However, when only a portion of the designated quantity is taken from the area, the quantity will be calculated from cross section measurements. When the contract documents do not identify an amount per cubic yard (cubic meter) for compensation, the material in the optional borrow area is available to the Contractor at no cost.~~

2. Contactor's Plan Submittals.

a. ~~When specified in the contract documents, s~~Submit a plan to the Engineer for use of ~~all~~ proposed alternate ~~borrow areas . Include in this plan~~ or designated borrow ~~areas that are~~ intended to be used in a manner different from that shown in the contract documents. ~~Also, w~~When required, sample the proposed alternate borrow areas by core drilling or test pits. When the Department determines it is necessary, sample in the presence of a representative from the Office of Design, Soils Design Section. Test samples and ~~P~~provide results and verification samples to the Contracting Authority ~~this representative for the Department to test. A minimum of 10 working days is necessary for this testing~~.

b. ~~A plan for use of alternate borrow areas may be submitted only once.~~ The submission for use of alternate borrow areas shall include all such areas necessary or contemplated for completion of the planned work.

~~**c.** Generally, optional borrow areas shall be used as intended or not at all. Obtain the Engineer's approval before using an optional borrow area in a manner different from that shown in the contract documents.~~

~~**d**~~**c.** Approval of materials and their use will be based on AASHTO M 145-91 and includes the following:

1) Select Treatment Materials.

a) The Engineer's approval is required for all soils required for select subgrade treatments. The Contractor may elect to substitute with special backfill material ~~(Section 4132)~~ or modified subbase material at one-half the required rate at no additional cost to the Contracting Authority. If special backfill material or modified subbase material is ~~substituted~~ used in lieu of select material, the Contractor shall provide for suitable surface and subsurface drainage of this material and provide suitable soils in lower portion of original subgrade treatment layer at no additional cost to the Contracting Authority.

(1) Cohesive Soils.
Meet the requirements of Article 2102.02, D, 1, a.

(2) Granular Soils.
Meet the requirements of Article 2102.02, D, 1, b.

(3) Special Backfill Material.
Meet the requirements of Section 4132.

(4) Modified Subbase Material.
Meet the requirements of Section 4123.

b) Use select treatment sources with sufficient uniformity and size to assure that complete individual treatment areas will be constructed with similar material. Substitution of treatment types (cohesive, granular, ~~or~~ special backfill, or modified subbase material) will be allowed only with the Engineer's permission.

2) Suitable Soils.
Meet the requirements of Article 2102.02, D, 2.

3) Unsuitable Soils.
Meet the requirements of Article 2102.02, D, 3.

4) Other Materials.
Place materials not covered above as required by Standard Specifications.

d. The Engineer may decline approval of an alternate borrow area when:

1) Necessary clearances cannot be obtained prior to the time scheduled for commencement of work.

2) Restrictions attached to clearances will delay or interfere with scheduled completion of work or may result in less than necessary quantities of required borrow materials.

3) Contractor's plan for use of borrow areas, including Contractor's verification of quantity and quality of required material, is not sufficient to assure availability of required material.

4) Contractor's proposed plans fail to meet requirements of the contract documents.

e. The Contracting Authority will not be responsible for damages due to a delay in

approval of an alternate borrow area or when approval of an alternate borrow area is declined.

3. Contractor Provided Clearances.

~~a.~~ Obtain and provide Engineer necessary environmental, archaeological, and historic preservation clearances and comply with all restrictions attached to these clearances for alternate borrow areas and sites where Contractor furnished borrow is obtained. ~~The Engineer will provide assistance in identification of permit procedures and expediting consideration of these requests.~~ Obtain other licenses and permits and comply with all other Federal, State, and local laws, ordinances, rules, and regulations involved in the proposed use of these ~~alternate borrow~~ areas.

~~**b.** The Engineer may decline approval of an alternate borrow area when:~~

~~**1)** Necessary clearances cannot be obtained prior to the time scheduled for commencement of the work.~~

~~**2)** Restrictions attached to these clearances will delay or interfere with the scheduled completion of work or may result in less than necessary quantities of the required borrow materials.~~

~~**3)** The Contractor's plan for the use of borrow areas, including the Contractor's verification of quantity and quality of required material, is not sufficient to assure the availability of required material.~~

~~**4)** The Contractor's proposed plans fail to meet requirements of the law or this specification.~~

~~**c.** The Contracting Authority will not be responsible for damages due to a delay in approval of an alternate borrow area or when approval of an alternate borrow area is declined.~~

4. Restoration.

a. Optional borrow areas shown on the Contractor's plan shall be left in at least as good a condition as that required by the contract documents for designated borrow areas. This applies whether all or only a part of the site or the material is used for borrow.

b. Use and rehabilitate optional borrow areas and~~, unless the landowner consents and agrees otherwise,~~ alternate borrow areas (unless Contractor and landowner have agreed to the final design of the alternate borrow area) so that:

1) The sites can continue to be used for the purpose for which they were used prior to removal of borrow.

2) The sites may still be used for those higher and more profitable or better potential uses to which the site might have been put to prior to removal of borrow material.

c. The Engineer will require restoration according to 314.12, Code of Iowa, to meet the above requirement. The overall Contractor's plan shall neither detract from nor interfere with the air, light, and view of motorists nor of adjacent landowners.

5. Obligations and Payment.

Use of an alternate borrow area shall not increase future obligations or total cost to the Contracting Authority. Complete all excavation from the roadway and the mandatory borrow areas.

6. Consideration of Proposal.

a. The Engineer will be allowed time to evaluate each alternate borrow area. If the clearance is not obtained within 30 calendar days, the proposed use of that borrow area may be rejected. During this evaluation period, the Contractor will not be charged for working days the Contractor does not work because the Contractor cannot use the borrow area.

b. The maximum allowance for each contract is not to exceed 30 working days. This allowance will not apply to work for which an intermediate completion time is specified. It will be given only when the delay will not interfere with others authorized to work on the project. It does not increase the Engineer's responsibility to provide coordination.

7. Starting Work.
Except for exploratory purposes, do not start work and take material from an alternate borrow or a contractor furnished borrow area until after:

- The Engineer approves the alternate borrow proposal in writing, and
- Providing the Engineer with a written release executed by the property owner and the Contractor relieving the Contracting Authority of any and all obligations to the property owner and saving the Contracting Authority harmless from all claims for injury to persons or damage to property resulting from the Contractor's operations.

8. Material Verification.
Material supplied from alternate borrow areas or contractor furnished borrow may be verified by the Contracting Authority for compliance with these requirements. When testing by the Contracting Authority is required, a minimum of 10 working days is necessary for testing. When the Engineer orders, remove and replace material verified not in close compliance with these requirements, at no additional cost to the Contracting Authority.

Comments:

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

F. Borrow.

1. General.

a. Unless provided otherwise in the contract documents, when the quantity of material required for embankments is not available within the limits of the roadway cross sections or specific borrow areas as indicated, make up the deficiency from borrow areas that the Contracting Authority provides and defines in the plans or else furnish the equivalent material from alternate borrow areas (in lieu of plan borrows) or contractor furnished borrow.

b. The following definitions apply to this specification:

1) Designated Borrow Area.
A general term for borrow areas that the Contracting Authority provides, including mandatory and optional borrow areas.

a)~~1)~~ Mandatory Borrow Areas.
An area provided by the Contracting Authority from which the Contractor is expected to obtain borrow material and to operate in the area according to the contract documents. Mandatory borrow areas will be designated in the contract documents.

b)~~2)~~ Optional Borrow Area.
An area provided by the Contracting Authority from which the Contractor may obtain borrow material. If so obtained, the Contractor is expected to operate in the area according to the contract documents. Borrow areas are optional borrow areas unless specifically designated as mandatory borrow areas.

2~~3~~) Alternate Borrow Areas.
An area outside the highway right-of-way provided or to be provided by the Contractor from which the Contractor may obtain borrow material in lieu of designated borrow areas and to be used ~~Use~~ according to the contract documents. The Contractor is responsible for obtaining all rights, clearances, and permits associated with this area and for use of this material.

~~**4) Designated Borrow Area.**~~
~~A general term for borrow areas the Contracting Authority provides, including mandatory and optional borrow areas.~~

3) Contractor Furnished Borrow
A general term for borrow material provided by the Contractor. The type of material shall be as specified in the contract documents. If type of material is not specified Contractor shall provide Suitable Soils. In lieu of Suitable Soils, Contractor may elect to provide Select Treatment Material.

c. ~~Provide~~ Upon completion, excavate borrow areas that are sufficiently regular in cross section to permit accurate measurement. Carefully blend to natural land forms and avoid unnecessary damage to the land. Do not turn natural drainage of surface water on to adjoining owners. Use diligence in draining the surface water in its natural course or channel. Complete excavation consistent with the existing natural drainage conditions or as shown in the contract documents.

d. Where a mandatory borrow area is designated in the contract documents, it is mandatory that borrow material be obtained from the borrow location designated and in accordance with the borrow design in the contract documents, unless permission is obtained from the Engineer to obtain borrow from another location.

e. Unless the contract documents designate borrow areas as mandatory borrow areas, borrow areas will be considered optional borrow areas. The Contractor has the option of either using the optional borrow areas or proposing to furnish equivalent material from alternate borrow areas.

~~**f.** The Contractor may be required to compensate the Contracting Authority for material removed from optional borrow areas. If so, the rate of compensation per cubic yard (cubic meter) to be charged will be shown in the contract documents. Compensation will not be required for topsoil that is removed and replaced. Compensation will be based on quantities shown in the contract documents, as corrected. However, when only a portion of the designated quantity is taken from the area, the quantity will be calculated from cross section measurements. When the contract documents do not identify an amount per cubic yard (cubic meter) for compensation, the material in the optional borrow area is available to the Contractor at no cost.~~

2. Contactor's Plan Submittals.

a. ~~When specified in the contract documents, s~~Submit a plan to the Engineer for use of all proposed alternate borrow areas or ~~. Include in this plan~~ designated borrow areas that are intended to be used in a manner different from that shown in the contract documents. Also~~, when required~~, sample the proposed alternate borrow areas by core drilling or test pits. When the DOT determines that it is necessary, sampling shall occur in the presence of a representative from ~~the~~Soils Design Section, Office of Design, DOT ~~Soils Design Section~~. Contractor to test samples and p~~P~~rovide test results and verification samples to the Contracting Authority ~~this representative for the Department to test. A minimum of 10 working days is necessary for this testing.~~

b. ~~A plan for use of alternate borrow areas may be submitted only once.~~ The submission for use of alternate borrow areas shall include all such areas necessary or contemplated for completion of the planned work.

~~**c.** Generally, optional borrow areas shall be used as intended or not at all. Obtain the Engineer's approval before using an optional borrow area in a manner different from that shown in the contract documents.~~

c~~d~~. Approval of materials and their use will be based on AASHTO M 145-91 and includes the following:

1) Select Treatment Materials.

a) The Engineer's approval is required for all soils required for select subgrade treatments. The Contractor may elect to substitute with special backfill material (Section 4132) or modified subbase material (Section 4123) at one-half the required rate at no additional cost to the Contracting Authority. If special backfill material or modified subbase material is ~~substituted~~ used in lieu of select material, the Contractor shall provide for suitable surface and subsurface drainage of this material and provide suitable soils in lower portion of the original subgrade treatment layer at no additional cost to the Contracting Authority.

(1) Cohesive Soils.
Meet the requirements of Article 2102.02, D, 1, a.

(2) Granular Soils.
Meet the requirements of Article 2102.02, D, 1, b.

(3) Special Backfill Material.

Meet the requirements of Section 4132.

(4) **Modified Subbase Material**

Meet the requirements of Section 4123

b) Use select treatment sources with sufficient uniformity and size to assure that complete individual treatment areas will be constructed with similar material. Substitution of treatment types (cohesive, granular, ~~or~~ special backfill, or modified subbase material) will be allowed only with the Engineer's permission.

2) Suitable Soils.
Meet the requirements of Article 2102.02, D, 2.

3) Unsuitable Soils.
Meet the requirements of Article 2102.02, D, 3.

4) Other Materials.
Place materials not covered above as required by Standard Specifications.

d. The Engineer may decline approval of an alternate borrow area when:

1) Necessary clearances cannot be obtained prior to the time scheduled for commencement of the work.

2) Restrictions attached to these clearances will delay or interfere with the scheduled completion of work or may result in less than necessary quantities of the required borrow materials.

3) The Contractor's plan for the use of borrow areas, including the Contractor's verification of quantity and quality of required material, is not sufficient to assure the availability of required material.

4) The Contractor's proposed plans fail to meet requirements of the law or this specification.

e. The Contracting Authority will not be responsible for damages due to a delay in approval of an alternate borrow area or when approval of an alternate borrow area is declined.

3. Contractor Provided Clearances.

a. Obtain and provide Engineer necessary environmental, archaeological, and historic preservation clearances and comply with all restrictions attached to these clearances for alternate borrow areas and sites where contractor furnished borrow is obtained. ~~The Engineer will provide assistance in identification of permit procedures and expediting consideration of these requests.~~ Obtain other licenses and permits and comply with all other Federal, State, and local laws, ordinances, rules, and regulations involved in the proposed use of these ~~alternate borrow~~ areas.

~~**b.** The Engineer may decline approval of an alternate borrow area when:~~

~~**1)** Necessary clearances cannot be obtained prior to the time scheduled for commencement of the work.~~

~~**2)** Restrictions attached to these clearances will delay or interfere with the scheduled completion of work or may result in less than necessary quantities of the required borrow materials.~~

~~**3)** The Contractor's plan for the use of borrow areas, including the Contractor's verification of quantity and quality of required material, is not sufficient to assure the availability of required material.~~

~~**4)** The Contractor's proposed plans fail to meet requirements of the law or this specification.~~

~~**c.** The Contracting Authority will not be responsible for damages due to a delay in approval of an alternate borrow area or when approval of an alternate borrow area is declined.~~

4. Restoration.

a. Optional borrow areas shown on the Contractor's plan shall be left in at least as good a condition as that required by the contract documents for designated borrow areas. This applies whether all or only a part of the site or the material is used for borrow.

b. Use and rehabilitate optional borrow areas and~~, unless the landowner consents and~~

~~agrees otherwise,~~ alternate borrow areas (unless Contractor and landowner have agreed to the final design of the alternate borrow area) so that:

1) The sites can continue to be used for the purpose for which they were used prior to removal of borrow.

2) The sites may still be used for those higher and more profitable or better potential uses to which the site might have been put to prior to removal of borrow material.

c. The Engineer will require restoration according to 314.12, Code of Iowa, to meet the above requirement. The overall Contractor's plan shall neither detract from nor interfere with the air, light, and view of motorists nor of adjacent landowners.

5. Obligations and Payment.

Use of an alternate borrow area shall not increase future obligations or total cost to the Contracting Authority. Complete all excavation from the roadway and the mandatory borrow areas.

6. Consideration of Proposal.

a. The Engineer will be allowed time to evaluate each alternate borrow area. If the clearance is not obtained within 30 calendar days, the proposed use of that borrow area may be rejected. During this evaluation period, the Contractor will not be charged for working days the Contractor does not work because the Contractor cannot use the borrow area.

b. The maximum allowance for each contract is not to exceed 30 working days. This allowance will not apply to work for which an intermediate completion time is specified. It will be given only when the delay will not interfere with others authorized to work on the project. It does not increase the Engineer's responsibility to provide coordination.

7. Starting Work.

Except for exploratory purposes, do not start work and take material from an alternate borrow or a contractor furnished borrow area until after:

- The Engineer approves the alternate borrow proposal in writing, and
- Providing the Engineer with a written release executed by the property owner and the Contractor relieving the Contracting Authority of any and all obligations to the property owner and saving the Contracting Authority harmless from all claims for injury to persons or damage to property resulting from the Contractor's operations.

8. Material Verification.

Material supplied from alternate borrow areas or contractor furnished borrow may be verified by the Contracting Authority for compliance with these requirements. When testing by the Contracting Authority is required, a minimum of 10 working days is necessary for testing. When the Engineer orders, remove and replace material verified not in close compliance with these requirements, at no additional cost to the Contracting Authority.

Reason for Revision: Worked with Soils Design Section to update borrows requirements to clarify items such as: 1) Definitions of alternate borrows and contractor furnished borrow and 2) contractor submittal requirements for alternate borrows.

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: John Smythe / Kyle Frame	**Office:** Construction	**Item 4**
Submittal Date: 2011.09.30	**Proposed Effective Date:** April 2012	
Article No.: 2402.04 **Title:** Method of Measurement (Excavation for Structures) **Article No.:** 2405.03 **Title:** Construction (Foundations and Substructures)	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2011	**Effective Date:** 4/17/2012

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

2402.04, B, 2.

Replace Articles a and b:

a. For concrete structures and parts of structures without footings, ~~18~~ 36 inches (~~0.5~~ 1 m) outside the horizontal projection of the structure.

b. For concrete structures with footings, ~~18~~ 36 inches (~~0.5~~ 1 m) outside the footings.

2405.03, A, 4.

Replace the Article:

4. Provide a clear space of at least ~~18~~ 36 inches (~~0.5~~ 1 m) on all sides between the footing and the cofferdam.

Comments:

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

Replace articles 2402.04 B, 2, a and b:

~~**a.** For concrete structures and parts of structures without footings, 18 inches (0.5 m) outside the horizontal projection of the structure.~~

~~**b.** For concrete structures with footings, 18 inches (0.5 m) outside the footings.~~

a. For concrete structures and parts of structures without footings, 36 inches (1 m) outside the horizontal projection of the structure.

b. For concrete structures with footings, 36 inches (1 m) outside the footings.

Replace the first sentence of Article 2405.03 A, 4:

~~**4.** Provide a clear space of at least 18 inches (0.5 m) on all sides between the footing and the cofferdam.~~

4. Provide a clear space of at least 36 inches (1 m) on all sides between the footing and the cofferdam.

Reason for Revision: Increase the horizontal limits of excavation to allow room outside of the footing for water management.

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: John Smythe / Kyle Frame	**Office:** Construction	**Item 5**
Submittal Date: 2011.09.30	**Proposed Effective Date:** April 2012	
Article No.: 2403.05 **Title:** Basis of Payment (Structural Concrete)	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2011	**Effective Date:** 4/17/2012

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

2403.05, Basis of Payment.

Add the Article:

G. Heating frozen soil or protecting soil from freezing, or both, prior to concrete placement is incidental regardless of winter work being specified on the contract documents.

Comments:

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

Add Article 2403.05 G:

G. Heating frozen soil or protecting soil from freezing or both prior to concrete placement is incidental with or without winter work being specified in the contract documents.

Reason for Revision: Clarify that heating frozen soil or protecting soil from freezing prior to concrete placement is an incidental item.

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: John Smythe / Kyle Frame	**Office:** Construction	**Item 6**
Submittal Date: 2011.09.30	**Proposed Effective Date:** April 2012	
Section No.: 2501 **Title:** Piles and Pile Driving	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2011	**Effective Date:** 4/17/2012

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

2501.04, D, Extensions and Splices.

Replace the Article:

1. **Wood and Steel Piling.**
   a. ~~For~~ Measurement for extensions of wood, steel HP (either encased or not), or steel pipe piles ~~that are extended, the length measured for payment~~ will be the length of the extension specified by the Engineer. Portions of pile cut-offs used as extensions on the same contract will not be remeasured as additional plan quantity.
   b. Splices (welded or mechanical) are measured by count. Only splices specified by the Engineer to extend piles beyond plan length will be counted.

2. **Concrete Piling.**
   a. ~~For~~ Measurement for extensions of concrete piles ~~that are extended, the length measured for payment~~ will be the length of the extension specified by the Engineer, plus the additional length required to be removed for splicing the reinforcement.
   b. Splices are not measured separately.

2501.05, Basis of Payment.

Replace Articles C and D:

C. Extension and Splicing of Steel ~~H-piles or Pipe~~ Piles.

1. Payment for extension will be at the contract unit price for pile.

2. Payment for splice (welded or mechanical) will be at ten times the contract unit price per linear foot (three times the contract unit price per meter) ~~for splices (welded or mechanical)~~ for steel H~~P~~-piles or pipe piles required to be spliced to obtain lengths greater than specified in the contract. Payment includes all equipment, labor, and materials necessary to complete the splice.

D. Extension and Splicing of Wood Piles.

1. Payment for extension will be at the contract unit price for pile.

2. Payment for splice will be according to Article 1109.03, B.

Comments:

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

Replace Article 2501.04 D:

~~**D. Extension and Splices.**~~

~~**1.** For wood, steel HP (either encased or not), or steel pipe piles that are extended, the length~~

~~measured for payment will be the length of the extension specified by the Engineer. Portions of pile cut-offs used as extensions on the same contract will not be remeasured as additional plan quantity.~~

~~**2.** For concrete piles that are extended, the length measured for payment will be the length of the extension specified by the Engineer, plus the additional length required to be removed for splicing the reinforcement.~~

D. Extensions and Splices.

1. a. Measurement for extensions of wood, steel HP (either encased or not), or steel pipe piles will be the length of the extension specified by the Engineer. Portions of pile cut-offs used as extensions on the same contract will not be remeasured as additional plan quantity.

   b. Splices (welded or mechanical) are measured by count. Only splices specified by the Engineer to extend piles beyond plan length are counted.

2. a. Measurement for extensions of concrete piles will be the length of the extension specified by the Engineer, plus the additional length required to be removed for splicing the reinforcement.

   b. Splices are not measured separately.

Replace Articles 2501.05 C and D:

~~**C. Extension of Steel H-piles or Pipe Piles.**~~
~~Payment will be at ten times the contract unit price per linear foot (three times the contract unit price per meter) for splices (welded or mechanical) for steel HP-piles or pipe piles required to be spliced to obtain lengths greater than specified in the contract. Payment includes all equipment, labor, and materials necessary to complete the splice.~~

~~**D. Splicing of Wood Piles.**~~
~~Payment will be according to Article 1109.03, B.~~

C. Extension and Splicing of Steel H-piles or Pipe Piles.

1. Payment for the extension will be at the contract unit price for the pile.

2. Payment for the splice (welded or mechanical) will be at ten times the contract unit price per linear foot (three times the contract unit price per meter) for steel HP-piles or pipe piles required to be spliced to obtain lengths greater than specified in the contract. Payment includes all equipment, labor, and materials necessary to complete the splice.

D. Extension and Splicing of Wood Piles.

1. Payment for the extension will be at the contract unit price for the pile.

2. Payment for the splice will be according to Article 1109.03, B.

Reason for Revision: Create a separate extension and splice item for each pile type in the Method of Measurement and Basis of Payment. The change is for clarification only.

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: John Smythe / Kevin Merryman	**Office:** Construction	**Item 7**
Submittal Date: September 26, 2011	**Proposed Effective Date:** April 2012	
Section No.: 2529 **Title:** Full Depth Finish Patches	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2011	**Effective Date:** 4/17/2012

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: The Specification Section asked if there were installation requirements needed to be followed for subgrade stabilization material. The Office of Construction explained that after the material beneath the subgrade stabilization material is compacted, the subgrade stabilization material is laid over it and the subbase material placed.

Specification Section Recommended Text:

2529.02, Materials.

Add the Article:

G. Subgrade Stabilization Material, Polymer Grid
Meet requirements of Section 4196.

2529.03, D, 1.

Replace the second sentence:

~~Replace with subbase.~~ Place subgrade stabilization material when required, and place subbase material.

2529.04, D, Subbase (Patches).

Add the Article:

3. When required, subgrade stabilization material will not be measured separately for payment.

2529.05, D, 2.

Add new bulleted item:

- Furnishing and installing subgrade stabilization material when required.

Comments:

Member's Requested Change (Redline/Strikeout):

2529.02 MATERIALS.

H. Subgrade Stabilization Material, Polymer Grid
Meet the requirements of Section 4196

2529.03 CONSTRUCTION.

D. Restoring Subbase or Subgrade for Full Depth Finish Patches.

1. When subbase is required by the contract documents or by the Engineer, remove the exposed subbase or subgrade, or both, to a depth of 6 inches (150 mm), or as specified in the contract documents, below the bottom of the new patch. ~~Replace with subbase.~~ Place subgrade stabilization material when required, and place subbase material. When unstable material or excessive moisture is encountered in the subgrade, the Engineer may order an additional thickness of subbase, if necessary, to ensure drainage.

2529.04 METHOD OF MEASUREMENT.

D. Subbase (Patches).

1. Where subbase aggregate is placed in patch areas, as required by the contract documents or the Engineer, the Engineer will compute in square yards (square meters) the areas of subbase placed as provided in Paragraph A, above. Excludes areas associated with anchor lug removal. The Engineer will not measure subbase aggregate used for special shaping at longitudinal drains or subbase used at the Contractor's option.

2. The Engineer will separately compute areas in square yards (square meters), where subbase was directed to be placed to a depth greater than that originally specified.

4. When required, subgrade stabilization material will not be measured separately for payment.

2529.05 BASIS OF PAYMENT.

D. Subbase (Patches).

1. For the number of square yards (square meters) of subbase furnished and placed, the Contractor will be paid the contract unit price per square yard (square meter).

2. Payment is full compensation for:

- Furnishing and installing subgrade stabilization material when required.
- Furnishing and installing subbase,
- Additional excavation necessary for this placement and the removal of excavated material,
- Placing backfill material in the disturbed shoulder area.

3. When subbase has been placed to a greater depth than specified in the contract documents, at the Engineer's direction, payment per square yard (square meter) for those areas will be increased by 20% for each inch (30 mm) of increased depth. This increased payment is full compensation for additional excavation and subbase material, associated compaction, and if so ordered, additional depth for the transverse subdrain.

Reason for Revision: In an attempt to improve EF joint patch performance, the minimum patch length is being increased from 6 to 10 feet, and subgrade stabilization material will be placed below the subbase material. These changes reflect changes to be made to the RR-1 Road Standard.

County or City Input Needed (X one)			**Yes**	**No** X	
Comments:					
Industry Input Needed (X one)			**Yes**	**No** X	
Industry Notified:	**Yes** X	**No**	**Industry Concurrence:**	**Yes**	**No**
Comments: Proposed changes were sent to the Iowa Concrete Paving Association. No comments were received.					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: John Smythe / Kevin Merryman	**Office:** Construction	**Item 8**
Submittal Date: September 26, 2011	**Proposed Effective Date:** April 2012	
Article No.: 2530.03, C **Title:** Limitations of Operations (Partial Depth Finish Patches)	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2011	**Effective Date:** 4/17/2012

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

2530.03, C, 3.

Replace the Article:

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

Comments:

Member's Requested Change (Redline/Strikeout):

2530.03, C LIMITATIONS OF OPERATIONS.

3. 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~~ contract documents. ~~In this case, a flagger will be required at that location until the patch is placed. Use Class A patching material in these patches.~~

Reason for Revision: These are corrections to erroneous language in the specification. Proposed changes reflect past changes to traffic control requirements. The allowance to encroach in an adjacent lane is no longer in the traffic control plan, and flaggers are no longer required when encroaching on an adjacent lane. Class A patching materials need not be required when encroaching on an adjacent lane.

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 9**
Submittal Date: September 26, 2011	**Proposed Effective Date:** April 2012	
Section No.: 2532 **Title:** Pavement Surface Repair (Diamond Grinding)	**Other:**	

Specification Committee Action: Approved with changes.

Deferred:	Not Approved:	Approved Date: 10/13/2011	Effective Date: 4/17/2012

Specification Committee Approved Text:

2532.03, A, Equipment.

Add new Article:

4. Select the blade type and number of blades per foot (meter) to provide proper surface texture based on the concrete being ground, in particular, the coarse aggregate type.

2532.03, B, 2, PCC Pavement.

Replace Articles a and b:

a. Grind and texture ~~substantially the~~ entire surface area of the pavement until:

- The pavement surface on both sides of the transverse joints and all cracks are substantially in the same plane with no greater than 1/16 inch (1.59 mm) difference between adjacent sides of joints or cracks, and
- The pavement surface meets the smoothness required.

b. In each lane, ensure at least 95% of the area in each 100 foot (30 m) section has a newly textured surface. Depressed pavement areas and areas of excess faulting as identified in 2532.03, C, 1, b, 4 will be exempt from this requirement.

2532.03, B, 2, c, 4.

Replace Table 2532.03-1:

Table 2532.03-1: Grinding Head Tolerances

~~(ENGLISH)~~	Limestone	Gravel/Quartzite
~~Blade segment thickness~~ Land area between grooves[(a)]	~~0.130 inch maximum~~ ~~0.100 inch to 0.125 inch~~ 0.090 to 0.110 inches (2.29 to 2.79 mm)	~~0.130 inch maximum~~ ~~0.080 inch to 0.110 inch~~ 0.080 to 0.095 inches (2.03 to 2.41 mm)
Texture depth[(b)]	Target of ~~1/16~~ 1/8 inch (3.18 mm) with average between ~~1/32~~ 1/16 inch to ~~3/32~~ 3/16 inches (1.59 mm to 4.77 mm)	
~~(METRIC)~~	~~Limestone~~	~~Gravel~~
~~Blade segment thickness~~ ~~Land area between grooves[(a)]~~	~~3.30 mm maximum~~ ~~2.5 mm to 3.4 mm~~	~~3.30 mm maximum~~ ~~2 mm to 2.75 mm~~
~~Texture depth[(b)]~~	~~Target of 2 mm with average between 1 mm to 2.5 mm~~	

(a) Based on an average of a minimum of ten measurements across the ground width for one pass.

(b) Based on an average of a minimum of six measurements across the ground width for one pass.

2532.03, B, 3, b.

Replace the Article:

Assemble the grinding head to produce the tolerances in Table 2532.03-~~2~~ 1 on bridge decks.

~~Table 2532.03-2: Grinding Head Tolerances~~

~~(ENGLISH)~~	~~Limestone~~

~~Blade segment thickness~~ ~~Land area between grooves[(a)]~~	~~0.130 inch maximum~~ ~~0.100 inch to 0.125 inch~~ ~~0.090 to 0.110 inch~~ ~~(2.29 to 2.79 mm)~~
~~Texture depth[(b)]~~	~~Target of 1/16 1/8 inch (3.18 mm) with average between 1/32 1/16 inch to 3/32 3/16 inch (1.59 mm to 4.77 mm)~~
~~(a) Based on an average of a minimum of ten measurements across the ground width for one pass.~~ ~~(b) Based on an average of a minimum of six measurements across the ground width for one pass.~~	

2532.03, C, 1, PCC Pavement.

Replace the Article:

a. The Engineer ~~will~~ may partly profile the pavement ~~on the initial trace~~ using ~~the procedure described in Article 2316.02, B~~ an inertial profiler. The latest inventory average ~~profile index~~ international roughness index (IRI) for each area ~~will~~ may be shown in the contract documents. The bidder is also advised that ~~all profilograph~~ any available profile information is available ~~for review at~~ electronically from the Office of Contracts by contacting the Contracts Engineer. ~~After the contract is awarded, the profilograph information will be available from the Engineer.~~ This information represents a summary of conditions found to exist at the time the survey was made. The availability of this information will not constitute a guarantee that a profile other than that indicated will not be encountered at the time of milling.

b. ~~Provide a control profilograph trace as described in Article 2316.02, B prior to performing grinding work. This control trace will be used to identify the required smoothness for the project. Each segment of the finished ground surface is to:~~

- ~~Have a final profile index of 10.0 inches per mile (160 mm/km) or less for roadways with a posted speed over 45 mph~~
- ~~Have a final profile index of 30.0 inches per mile (475 mm/km) or less for roadways with a posted speed of 45 mph or less , and~~
- ~~Not include any bumps exceeding 0.5 inches in 25 feet (13 mm in 8 m).~~

Prior to performing grinding work, provide a profile using an inertial profiler meeting the requirements of Materials I.M. 341 and equipped with either a TriODS or RoLine laser that simulates the tire footprint. This control profile will be used to identify the required smoothness for the project if a percent improvement is the controlling factor. Obtain a final average IRI for each 0.1 lane-mile (161 lane-meter) segment as follows:

1) For speeds greater than 45 mph: 65.0 in/mile (1.027 m/km) or less and no bumps exceeding 0.5 inches in 25 feet (12.7 mm in 7.6 m).

2) For speeds 45 mph or less: 115.00 in/mile (1.816 m/km) and or less and no bumps exceeding 0.5 inches in 25 feet (12.7 mm in 7.6 m).

3) For extremely rough conditions: the greater of 35% of the pre-grind profile or the aforementioned requirement shall be the required smoothness or less and no bumps exceeding 0.5 inches in 25 feet (12.7 mm in 7.6 m).

4) Identify depressed pavement areas and localized areas with excess faulting greater than 1 inch (25 mm). Review these areas with the Engineer to determine the limits for exclusion from the profile index calculation.

c. ~~Identify depressed pavement areas and localized areas with excess faulting greater than 1 inch (25 mm). Review these areas with the Engineer to determine the limits for exclusion from the profile index calculation.~~ Obtain the profile in both wheel paths of each mainline lane using a certified operator. A pavement segment is defined in Article 2317.03. Compute an average IRI for each segment of each lane by averaging the two wheel path IRI values. The wheel paths are at 3 feet (0.9 m) and 9 feet (2.7 m) from center line or lane line.

d. ~~After grinding, test and evaluate the surface according to Section 2316. Incentives for pavement smoothness will not apply.~~ Verification testing requirements will be according to Article 2317.04, F.

2532.04, A, 2.

Replace the Article:

Adjacent paved areas ground to minimize vertical projections will ~~not~~ be measured for payment. Payment will be in square yards (square meters) of Pavement Surface Repair based upon a width of 2 feet (0.61 m) times the length of the required feather pass.

2532.05, Basis of Payment.

Add the Article:

C. In addition to the payments above, the Contractor may receive an incentive payment based upon the number of qualifying segments. The incentive payment will be based upon the following schedule:

Table 2532.05-1: Incentives for Pavement Surface Repair (Diamond Grinding)

International Roughness Index For greater than 45 mph	International Roughness Index for 45 mph or less	Dollars per 0.1 mile (161 m) segment per lane
Inches per mile (m/km)	Inches per mile (m/km)	
0.00 – 30.00 (0.000-0.473)	-	400
30.01 - 50.00 (0.474-0.789)	- -	1000-(20 X IRI) [1000-(1267 X IRI)]
50.01 - 65.00 (0.790-1.026)	0.00 - 115.00 (0.000-1.815)	Contract Unit Price
>65.01 (1.027)*	>115.01 (1.816)*	Grind

* For extremely rough conditions, this limit may be higher as noted above.

Comments: The Office of Construction requested that the sentence "After the contract is awarded, the profilograph information will be available from the Engineer" be removed. We already say than any available information will be available prior to the letting.

The Office of Construction explained the definition of "extremely rough conditions" as stated in Article 2532.03, C, 1, b, 3. Any time 35% of the pre-grind profile is greater than the standard requirement, the final IRI can meet the 35% of the pre-grind profile number.

The FHWA asked about the TriODS or RoLine laser requirement. The Office of Materials will write a Materials I.M. giving the laser requirements and an appendix giving the approved manufacturers. The reference in the revision will be revised to indicate where the appendix listing the approved manufactures can be found.

SUDAS proposed adding language addressing blade thickness since we are removing the blade thickness specification. This language has been added to Article 2532.03, A.

The District 6 Office asked about the equation in Table 2532.05-1 for dollars per 0.1 mile (161 m) segment per lane. The formula for English and metric were shown together. The formulas were placed on separate lines to clarify.

Specification Section Recommended Text:

2532.03, B, 2, PCC Pavement.

Replace Articles a and b:

a. Grind and texture ~~substantially the~~ entire surface area of the pavement until:

- The pavement surface on both sides of the transverse joints and all cracks are substantially in the same plane with no greater than 1/16 inch (1.59 mm) difference between adjacent sides of joints or cracks, and
- The pavement surface meets the smoothness required.

b. In each lane, ensure at least 95% of the area in each 100 foot (30 m) section has a newly textured surface. Depressed pavement areas and areas of excess faulting as identified in 2532.03, C, 1, b, 4 will be exempt from this requirement.

2532.03, B, 2, c, 4.

Replace Table 2532.03-1:

Table 2532.03-1: Grinding Head Tolerances

~~(ENGLISH)~~	Limestone	Gravel/Quartzite
~~Blade segment thickness~~ Land area between grooves[(a)]	~~0.130 inch maximum~~ ~~0.100 inch to 0.125 inch~~ 0.090 to 0.110 inches (2.29 to 2.79 mm)	~~0.130 inch maximum~~ ~~0.080 inch to 0.110 inch~~ 0.080 to 0.095 inches (2.03 to 2.41 mm)
Texture depth[(b)]	Target of ~~1/16~~ 1/8 inch (3.18 mm) with average between ~~1/32~~ 1/16 inch to ~~3/32~~ 3/16 inches (1.59 mm to 4.77 mm)	
~~(METRIC)~~	~~Limestone~~	~~Gravel~~
~~Blade segment thickness~~ ~~Land area between grooves[(a)]~~	~~3.30 mm maximum~~ ~~2.5 mm to 3.4 mm~~	~~3.30 mm maximum~~ ~~2 mm to 2.75 mm~~

~~Texture depth[(b)]~~	~~Target of 2 mm with average between 1 mm to 2.5 mm~~

(a) Based on an average of a minimum of ten measurements across the ground width for one pass.

(b) Based on an average of a minimum of six measurements across the ground width for one pass.

2532.03, B, 3, b.

Replace the Article:

Assemble the grinding head to produce the tolerances in Table 2532.03-~~2~~ 1 on bridge decks.

~~Table 2532.03-2: Grinding Head Tolerances~~

~~(ENGLISH)~~	**~~Limestone~~**
~~Blade segment thickness~~ ~~Land area between grooves[(a)]~~	~~0.130 inch maximum~~ ~~0.100 inch to 0.125 inch~~ ~~0.090 to 0.110 inch~~ ~~(2.29 to 2.79 mm)~~
~~Texture depth[(b)]~~	~~Target of 1/16 1/8 inch (3.18 mm) with average between 1/32 1/16 inch to 3/32 3/16 inch (1.59 mm to 4.77 mm)~~

~~(a) Based on an average of a minimum of ten measurements across the ground width for one pass.~~

~~(b) Based on an average of a minimum of six measurements across the ground width for one pass.~~

2532.03, C, 1, PCC Pavement.

Replace the Article:

a. The Engineer ~~will~~ may partly profile the pavement ~~on the initial trace~~ using ~~the procedure described in Article 2316.02, B~~ an inertial profiler. The latest inventory average ~~profile index~~ international roughness index (IRI) for each area ~~will~~ may be shown in the contract documents. The bidder is also advised that all ~~profilograph~~ available profile information is available ~~for review at~~ electronically from the Office of Contracts by contacting the Contracts Engineer. After the contract is awarded, ~~the profilograph~~ available profile information ~~will~~ may be ~~available~~ obtained from the Engineer. This information represents a summary of conditions found to exist at the time the survey was made. The availability of this information will not constitute a guarantee that a profile other than that indicated will not be encountered at the time of milling.

b. ~~Provide a control profilograph trace as described in Article 2316.02, B prior to performing grinding work. This control trace will be used to identify the required smoothness for the project. Each segment of the finished ground surface is to:~~

- ~~Have a final profile index of 10.0 inches per mile (160 mm/km) or less for roadways with a posted speed over 45 mph~~
- ~~Have a final profile index of 30.0 inches per mile (475 mm/km) or less for roadways with a posted speed of 45 mph or less , and~~
- ~~Not include any bumps exceeding 0.5 inches in 25 feet (13 mm in 8 m).~~

Prior to performing grinding work, provide a profile using an inertial profiler meeting the requirements of Materials I.M. 341 and equipped with either a TriODS or RoLine laser that simulates the tire footprint. This control profile will be used to identify the required smoothness for the project if a percent improvement is the controlling factor. Obtain a final average IRI for each 0.1 lane-mile (161 lane-meter) segment as follows:

1) For speeds greater than 45 mph: 65.0 in/mile (1.027 m/km) or less and no bumps exceeding 0.5 inches in 25 feet (12.7 mm in 7.6 m).

2) For speeds 45 mph or less: 115.00 in/mile (1.816 m/km) and or less and no bumps exceeding 0.5 inches in 25 feet (12.7 mm in 7.6 m).

3) For extremely rough conditions: the greater of 35% of the pre-grind profile or the aforementioned requirement shall be the required smoothness or less and no bumps exceeding 0.5 inches in 25 feet (12.7 mm in 7.6 m).

4) Identify depressed pavement areas and localized areas with excess faulting greater than 1 inch (25 mm). Review these areas with the Engineer to determine the limits for exclusion from the profile index calculation.

c. ~~Identify depressed pavement areas and localized areas with excess faulting greater than 1 inch (25 mm). Review these areas with the Engineer to determine the limits for exclusion from the profile index~~

~~calculation.~~ Obtain the profile in both wheel paths of each mainline lane using a certified operator. A pavement segment is defined in Article 2317.03. Compute an average IRI for each segment of each lane by averaging the two wheel path IRI values. The wheel paths are at 3 feet (0.9 m) and 9 feet (2.7 m) from center line or lane line.

d. ~~After grinding, test and evaluate the surface according to Section 2316. Incentives for pavement smoothness will not apply.~~ Verification testing requirements will be according to Article 2317.04, F.

2532.04, A, 2.

Replace the Article:

Adjacent paved areas ground to minimize vertical projections will ~~not~~ be measured for payment. Payment will be in square yards (square meters) of Pavement Surface Repair based upon a width of 2 feet (0.61 m) times the length of the required feather pass.

2532.05, Basis of Payment.

Add the Article:

C. In addition to the payments above, the Contractor may receive an incentive payment based upon the number of qualifying segments. The incentive payment will be based upon the following schedule:

Table 2532.05-1: Incentives for Pavement Surface Repair (Diamond Grinding)

International Roughness Index For greater than 45 mph	**International Roughness Index for 45 mph or less**	**Dollars per 0.1 mile (161 m) segment per lane**
Inches per mile (m/km)	Inches per mile (m/km)	
0.00 – 30.00 (0.000-0.473)	-	400
30.01 - 50.00 (0.474-0.789)	-	1000-(20 X IRI) [1000-(1267 X IRI)]
50.01 - 65.00 (0.790-1.026)	0.00 - 115.00 (0.000-1.815)	Contract Unit Price
>65.01 (1.027)*	>115.01 (1.816)*	Grind

* For extremely rough conditions, this limit may be higher as noted above.

Comments:

Member's Requested Change (Redline/Strikeout):

B. Pavement Surface Repair.

2. PCC Pavement.

a. Grind and texture ~~substantially~~ the entire surface area of the pavement until:

- The pavement surface on both sides of the transverse joints and all cracks are substantially in the same plane with no greater than 1/16 inch (1.59 mm) difference between the adjacent sides of the joints or cracks, and
- The pavement surface meets the smoothness required.

b. In each lane, ensure at least 95% of the area in each 100 foot (30 m) section has a newly textured surface. Depressed pavement areas and areas of excess faulting as identified in 2532.03, C, 1, b, 4 will be exempt from this requirement.

c. Meet the following requirements for grinding:

1) Ensure all construction traffic entering or leaving the work area moves in the direction of traffic of the open lane.

2) Begin and end at lines normal to the pavement center line within any one ground area and at the project limits. This will not be required at the end of each shift.

3) Maintain good transverse drainage at all times.

4) Assemble the grinding head to produce the tolerances in Table 2532.03-1 on pavements with the indicated coarse aggregates.

5) A test area 500 feet (150 m) long and the width of the grinding head will be allowed for each new or restacked head, provided a surface texture in reasonable conformance with the specification is being produced.

3. Bridge Deck.

a. Grind and longitudinally groove the entire surface of the bridge deck according to Article 2412.03, D,

4, a.

b. Assemble the grinding head to produce the tolerances in Table 2532.03-21 on bridge decks.

Table 2532.03-1: Grinding Head Tolerances

~~(ENGLISH)~~	Limestone	Gravel/Quartzite
~~Blade segment thickness~~ Land area between grooves[a]	~~0.130 inch maximum~~ ~~0.100 inch to 0.125 inch~~ 0.090 to 0.110 inch (2.29 to 2.79 mm)	~~0.130 inch maximum~~ ~~0.080 inch to 0.110 inch~~ 0.080 to 0.095 inch (2.03 to 2.41 mm)
Texture depth[b]	Target of ~~1/16~~ 1/8 inch (3.18 mm) with average between ~~1/32~~ 1/16 inch to ~~3/32~~ 3/16 inch (1.59 mm to 4.77 mm)	

(a) Based on an average of a minimum of ten measurements across the ground width for one pass.

(b) Based on an average of a minimum of six measurements across the ground width for one pass.

~~**Table 2532.03-2: Grinding Head Tolerances**~~

~~(ENGLISH)~~	~~Limestone~~
~~Blade segment thickness~~ ~~Land area between grooves[a]~~	~~0.130 inch maximum~~ ~~0.100 inch to 0.125 inch~~ ~~0.090 to 0.110 inch~~ ~~(2.29 to 2.79 mm)~~
~~Texture depth[b]~~	~~Target of 1/16 1/8 inch (3.18 mm) with average between 1/32 1/16 inch to 3/32 3/16 inch (1.59 mm to 4.77 mm)~~

~~(a) Based on an average of a minimum of ten measurements across the ground width for one pass.~~

~~(b) Based on an average of a minimum of six measurements across the ground width for one pass.~~

C. Smoothness.

1. PCC Pavement.

a. The Engineer ~~will~~ may partly profile the pavement ~~on the initial trace~~ using an inertial profiler ~~the procedure described in Article 2316.02, B.~~ The latest inventory average international roughness index (IRI) ~~profile index~~ for each area ~~will~~ may be shown in the contract documents. The bidder is also advised that all available profile ~~profilograph~~ information is available electronically ~~for review~~ at the Office of Contracts by contacting the Contracts Engineer. After the contract is awarded, ~~the~~ available profile ~~profilograph~~ information ~~will~~ may be ~~available~~ obtained from the Engineer. This information represents a summary of conditions found to exist at the time the survey was made. The availability of this information will not constitute a guarantee that a profile other than that indicated will not be encountered at the time of milling.

b. Prior to performing any grinding work, provide a profile using an inertial profiler meeting the requirements of Materials I.M. 341 and equipped with either a TriODS or RoLine laser that simulates the tire footprint. This control profile will be used to identify the required smoothness for the project if a percent improvement is the controlling factor. Obtain a final average IRI for each 0.1 lane-mile (161 lane-meter) segment as follows:

5) For speeds greater than 45 mph: 65.0 in/mile (1.027 m/km) or less and no bumps exceeding 0.5 inches in 25 feet (12.7 mm in 7.6 m).

6) For speeds 45 mph or less: 115.00 in/mile (1.816 m/km) and or less and no bumps exceeding 0.5 inches in 25 feet (12.7 mm in 7.6 m).

7) For extremely rough conditions: the greater of 35 percent of the pre-grind profile or the aforementioned requirement shall be the required smoothness or less and no bumps exceeding 0.5 inches in 25 feet (12.7 mm in 7.6 m).

8) Identify depressed pavement areas and localized areas with excess faulting greater than 1 inch (25 mm). Review these areas with the Engineer to determine the limits for exclusion from the profile index calculation.

c. Obtain the profile in both wheel paths of each mainline lane using a certified operator. A pavement segment will be as defined in Article 2317.03. Compute an average IRI for each segment of each lane by averaging the two wheel path IRI values. The wheel paths are at 3 feet (0.9 m) and 9 feet (2.7 m) from the center line or lane line.

d. Verification testing requirements will be according to Article 2317.04, F.

~~b. Provide a control profilograph trace as described in Article 2316.02, B prior to performing grinding work. This control trace will be used to identify the required smoothness for the project. Each segment of the finished ground surface is to:~~

- ~~Have a final profile index of 10.0 inches per mile (160 mm/km) or less for roadways with a posted speed over 45 mph~~
- ~~Have a final profile index of 30.0 inches per mile (475 mm/km) or less for roadways with a posted speed of 45 mph or less , and~~
- ~~Not include any bumps exceeding 0.5 inches in 25 feet (13 mm in 8 m).~~

~~c. Identify depressed pavement areas and localized areas with excess faulting greater than 1 inch (25 mm). Review these areas with the Engineer to determine the limits for exclusion from the profile index calculation.~~

~~d. After grinding, test and evaluate the surface according to Section 2316. Incentives for pavement smoothness will not apply.~~

2532.04 METHOD OF MEASUREMENT.

Measurement will be as follows:

A. **PCC Pavement.**

1. Square ~~feet~~ yards (square meters) of Pavement Surface Repair, of the type specified, shown in the contract documents.

2. Adjacent paved areas ground to minimize vertical projections will ~~not~~ be measured for payment. Payment will be in square yards (square meters) of Pavement Surface Repair based upon a width of two feet (0.61 m) times the length of the required feather pass.

2532.05 BASIS OF PAYMENT.

B. In addition to the payments above, the Contractor may receive an incentive payment based upon the number of qualifying segments. The incentive payment will be based upon the following schedule:

International Roughness Index For greater than 45 mph	**International Roughness Index for 45 mph or less**	**Dollars per 0.1 mile (161 m) segment per lane**
Inches per mile (m/km)	Inches per mile (m/km)	
0.00 – 30.00 (0.000-0.473)	-	400
30.01 - 50.00 (0.474-0.789)	-	1000-(20 X IRI) [1000-(1267 X IRI)]
50.01 - 65.00 (0.790-1.026)	0.00 - 115.00 (0.000-1.815)	Contract Unit Price
>65.01 (1.027)*	>115.01 (1.816)*	Grind

* For extremely rough conditions, this limit may be higher as note above.

Reason for Revision: Proposed changes are based upon input and recommendations from industry.

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: Proposed changes were forwarded to the Iowa Concrete Paving Association.					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Dan Redmond	**Office: District 4 Materials**	**Item 10**
Submittal Date: 2011.09.08	**Proposed Effective Date:** April 2012	
Section No.: 4130 **Title:** Revetment Stone and Erosion Stone	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2011	**Effective Date:** 4/17/2012

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

4130.01, B.

Replace Table 4130.01-1, Virgin Stone Requirements:

Table 4130.01-1: Virgin Stone Requirements

Revetment Type	Revetment Quality	Test Limits (max)	Test Method
~~Primary projects:~~ Class A, ~~&~~ B, ~~revetment~~ ~~All projects: Class~~ C, & E revetment	Alumina	0.7	Iowa 222
	A Freeze	10	Iowa 211, Method A
	Secondary Pore Index	25	Iowa 219
~~Non-Primary projects: Class A & B revetment~~	~~C Freeze~~	~~5~~	~~Iowa 211, Method C~~
~~All projects:~~ Class D revetment	C Freeze	10	Iowa 211, Method C
Note: Revetment may pass either Alumina or A Freeze for compliance.			

Comments:

Member's Requested Change (Redline/Strikeout):

Revision of Section 4130. Revetment non-primary projects

Table 4130.01-1: Virgin Stone Requirements

Revetment Type	Revetment Quality	Test Limits (max)	Test Method
~~Primary projects:~~ Class A & B revetment ~~All projects:~~ Class E revetment	Alumina	0.7	Iowa 222
	A Freeze	10	Iowa 211, Method A
	Secondary Pore Index	25	Iowa 219
~~Non-Primary projects: Class A & B revetment~~	~~C Freeze~~	~~5~~	~~Iowa 211, Method C~~
~~All projects:~~ Class D revetment	C Freeze	10	Iowa 211, Method C
Note: Revetment may pass either Alumina or A Freeze for compliance.			

Table 4130.01-1: Virgin Stone Requirements

Revetment Type	Revetment Quality	Test Limits (max)	Test Method
Class A, B, C, and E revetment	Alumina	0.7	Iowa 222
	A Freeze	10	Iowa 211, Method A
	Secondary Pore Index	25	Iowa 219

Class D revetment	C Freeze	10	Iowa 211, Method C
Note: Revetment may pass either Alumina or A Freeze for compliance.			

Reason for Revision: Non-primary projects are not used.

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:.					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jim Berger	**Office:** Materials	**Item 11**
Submittal Date: 9-16-11	**Proposed Effective Date:** April 2012	
Article No.: 4184.01 **Title:** Description (Reflectorizing Spheres for Traffic Paint)	**Other:**	

Specification Committee Action: Approved with changes.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2011	**Effective Date:** 4/17/2012

Specification Committee Approved Text:

4184.01, B.

Replace the first sentence of the Article:

The glass beads shall not exhibit a characteristic of toxicity, relative to heavy metals ~~when tested in accordance with EPA 40CFR 261.24~~. Glass beads shall not contain more than 200 ppm total of lead, antimony, or arsenic. Manufacturer shall provide a certificate of analysis stating total lead, antimony, and arsenic content for each batch of glass beads supplied.

Comments: The Specifications Section asked if this specification should apply to local systems projects. The Office of Materials said we should be consistent on all projects. The phrase “for Iowa DOT projects” was removed from the revision.

Specification Section Recommended Text:

4184.01, B.

Replace the first sentence of the Article:

The glass beads shall not exhibit a characteristic of toxicity, relative to heavy metals ~~when tested in accordance with EPA 40CFR 261.24~~. Glass beads shall not contain more than 200 ppm total of lead, antimony, or arsenic. Manufacturer shall provide a certificate of analysis stating total lead, antimony, and arsenic content for each batch of glass beads supplied for Iowa DOT projects.

Comments:

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

4184.01,B

The glass beads shall not exhibit a characteristic of toxicity, relative to heavy metals. ~~When tested in accordance with EPA 40CFR 261.24.~~ Glass beads shall not contain more than 200 ppm total of lead,antimony or arsenic. The manufacturer shall provide a certificate of analysis stating the total lead,antimony and arsenic content for each batch of glass beads supplied for DOT projects.

Reason for Revision: Recent AASHTO recommendation.

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

Industry Notified:	**Yes** x	**No**	**Industry Concurrence:**	**Yes** x	**No**
Comments:					

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Deanna Maifield	**Office:** Design	**Item 12**
Submittal Date: 2011.09.29	**Proposed Effective Date:** 4/17/12	
Article No.: 4186.12, B **Title:** Guardrail Markers and Barrier Markers	**Other:**	

Specification Committee Action: Deferred until the November Spec. Committee meeting.

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

Specification Committee Approved Text:

Comments: The Specifications Section asked if this language should be part of Article 4186.12 or if it should go in Article 2528.03, E. The Committee decided that all of the language in Article 4186.12, B was construction related and should be located in Section 2528.

Article 2505.03, A, 5 references Article 4186.12. The committee wondered if changes to 4186.12, B should be reflected in Article 2505.03, A, 5.

Subsequent to the meeting, it was noted that Section 2513 covers concrete barrier and would be affected by changes to the barrier marker specifications. The Office of Design is going to review the revision and resubmit for the November Specification Committee meeting.

Specification Section Recommended Text:

4186.12, B.

Add as the second sentence:

Locate top of marker 2 inches (50 mm) below top of barrier.

Comments:

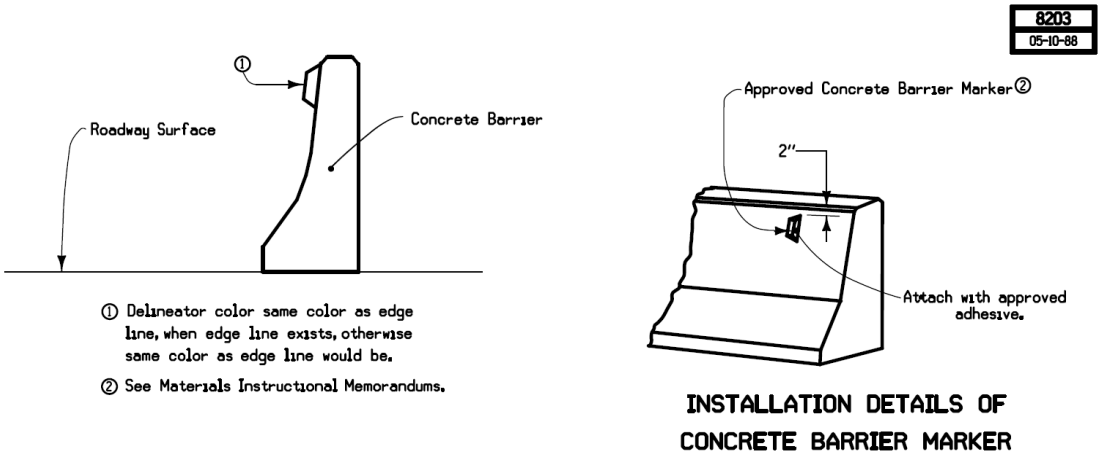
Member's Requested Change: **(Do not use 'Track Changes', or 'Mark-Up'. Use ~~Strikeout~~ and Highlight.)**

4186.12, B, Guardrail Markers and Barrier Markers.

Add as the second sentence:

Locate the marker such that the top of the marker is 2 inches (50 mm) below the top of the barrier.

Reason for Revision: The Office of Design is proposing to void Road Design Detail 8203. All of the information contained in the detail is already in the Standard Specifications except for the requested change.



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: Roger Bierbaum	**Office:** Contracts	**Item 13**
Submittal Date: 2011.08.01	**Proposed Effective Date:** December 20, 2011	
Article No.: **Title:**	**Other:** DS for On-Call Contracting for High Tension Cable Guardrail Repair	

Specification Committee Action: Deferred until a future meeting, tentatively June 2012.

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

Specification Committee Approved Text:

Comments: The Office of Contracts requested that the approval of the DS for On-Call Contracting for High Tension Cable Guardrail Repair be delayed until the Department can review the results of two projects let this fall with a similar Special Provision.

Specification Section Recommended Text: See attached Draft DS for On-Call Contracting for High Tension Cable Guardrail Repair.

Comments: There is interest in Districts 1 and 6 to use this method of repairing median cable guardrail. Since this guardrail system may be used on both medians and along the outside edge of the pavement section, the title needs to be changed from 'median' to 'high tension.' Intended contract period is one year. There will need to be coordination between the Engineer administrating the contract and the individuals contacting the Contractor requesting repairs if duplication of mobilization payments is desired to be reduced, otherwise multiple requests within one day will result in multiple payments for mobilization being required. Design will submit tensioning tables to Specifications for inclusion in the specification.

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

Reason for Revision: To have contractors perform on-call median cable guardrail repairs

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:					

DRAFT DS-09XXX
(New)

Iowa Department of Transportation

DEVELOPMENTAL SPECIFICATIONS
FOR
ON-CALL CONTRACTING FOR HIGH TENSION CABLE GUARDRAIL REPAIR

Effective Date
December 20, 2011

THE STANDARD SPECIFICATIONS, SERIES 2009, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

In addition to the requirements of Section 2505 of the Standard Specifications, the following will apply.

09XXX.01 DESCRIPTION.

A. General.
This specification covers repair of high tension cable guardrail installations located in the median or on the roadside.

Definitions:

- Installation - a continuous length of cables located between two end anchors.
- End Anchor - a post or group of posts holding one or more cables at ground level.
- Line Post - a post holding one or more cables at an elevation above the ground.

The contract documents will list county, route, begin and end milepost, direction, side of road, manufacturer, and system type of each installation for work covered by the contract.

B. Requests for Repair.
Requests for repairs will be made by individuals who have been approved to authorize repairs. The Department will furnish the Contractor a list of individuals approved to initiate repairs. Requests for repairs will be initiated with a fax or e-mail to the Contractor. Requests for repair will include route, milepost location, direction, side of road, and an estimate of the number of posts and foundations to be replaced at each location. Provide Engineer with an e-mail address and fax number which will be used for requests for repairs.

09XXX.02 MATERIALS.
Apply Article 2505.02 of the Standard Specifications.

Replace damaged materials with new materials of the same type and manufacturer as listed in the tabulation within the contract documents.

09XXX.03 CONSTRUCTION.

A. General.
Schedule repairs upon notification by the Engineer. Provide Engineer at least 24 hours advance notice prior to commencing work.

Routine repairs within an include:

- Removal and replacement of damaged line posts and hardware,
- Removal and replacement of damaged line post foundations, and
- Attaching or reattaching cable(s) to line posts.

Following repairs, check tension of all cables within the installation. Re-tension any cable falling outside manufacturer's recommended limits to within recommended limits.

Notify Engineer if non-routine repairs are needed. Approval of non-routine repairs shall have Engineer's approval before repair work may begin.

Remove and dispose of damaged materials. Leave work site in a safe and orderly condition at completion of work.

Keep a log of repairs. Provide Engineer a copy of log upon request. Log shall include:

- Date and time of notification to perform repairs,
- Department personnel requesting repair,
- Route number,
- Milepost, direction, and side of road of repair,
- Date and time repairs were completed,
- Number of line posts requiring only cables to be reattached,
- Number of line posts replaced,
- Number of line post foundations replaced,
- Cable tension measurements taken after each repair, or as part of annual tension check, and
- Cable tension measurements taken after each re-tensioning, as applicable.

Repairs may be performed either without a lane closure; or with a lane closure except for periods listed in the contract documents. Remove lane closure following completion of work. Traffic control for lane closure and shoulder closure shall be according to the Standard Road Plans included in the contract documents.

B. Annual Checking of Cable Tension.
Check tension of all cables within each installation once during the contract between April 1 and May 31. Check tension according to manufacturer's recommendations. Re-tension any cable whose tension falls outside manufacturer's recommendations.

09XXX.04 METHOD OF MEASUREMENT.

A. Post, Cable Repaired.
By count. Count will be the number of line posts replaced plus the number of line posts where one or more cables are reattached to the post.

B. Post, Foundation Replacement.
By count.

C. Mobilization, On-Call.
By count.

D. Cable, Re-tension.
By count.

E. Annual Checking of Cable Tension.
Not measured separately for payment.

09XXX.05 BASIS OF PAYMENT.

Article 1109.16, C, 4, b, of the Standard Specifications shall not apply to items on this contract.

A. Post, Cable Repaired.

Per line post. Payment is full compensation for removing and replacing damaged line post and hardware, attaching or reattaching cable(s) to line post, and checking tension of cables. Disposal of damaged materials, cost of removal of vegetation, snow removal, traffic control, and site cleanup are incidental to the item.

B. Post, Foundation Replacement.

Per line post foundation replaced. Payment is full compensation for removing damaged foundation, constructing new foundation, minor shaping, and concrete.

C. Mobilization, On-Call.

Each. One mobilization payment of $3000 per notification regardless of number of locations to be repaired. Mobilization payment will not be made for annual checking of cable tension.

Liquated Damages of $500 per calendar day will be assessed for each calendar day repair is not completed if work is not completed within 14 calendar days following notification by the Engineer.

D. Cable, Re-tension.

Each. Payment is full compensation for re-tensioning each cable found to be out of tolerance according to the manufacturer's recommendations.

E. Non-Routine Repairs.

Paid for according to Article 1109.03 of the Standard Specifications. May include, but not limited to the following: reattaching cables to end anchors, repairing or replacing end anchors, and repairing cable.