



# Iowa Department of Transportation

## MINUTES OF IOWA DOT SPECIFICATION COMMITTEE MEETING

October 10, 2013

<b>Members Present:</b>	Darwin Bishop Mark Brandl Donna Buchwald Mitch Dillavou Eric Johnsen, Secretary Wes Musgrove Gary Novey Dan Redmond Tom Reis, Chair Brian Smith Willy Sorensen	District 3 - Construction District 6 - Davenport RCE Office of Local Systems Project Delivery Bureau Specifications Section Office of Contracts Office of Bridges & Structures District 4 - Materials Specifications Section Office of Design Office of Traffic & Safety
<b>Members Not Present:</b>	Greg Mulder	Office of Construction & Materials
<b>Advisory Members Present:</b>	Lisa McDaniel	FHWA
<b>Others Present:</b>	Daniel Harness Ed Kasper Wayne Sunday	Office of Design Office of Contracts Office of Construction & Materials

Tom Reis, Specifications Engineer, opened the meeting. The following items were discussed in accordance with the agenda dated October 3, 2013:

**1. Article 1102.01, H, Competency and Qualification of Bidders.**

The Office of Contracts requested to clarify that prequalification is not required for debris removal projects and specify that the Department will determine if a contractor is qualified for projects not requiring prequalification.

**2. Article 1102.05, Issuance of Proposals.**

The Office of Contracts requested to update specification language to current practice.

**3. Article 1102.09, A, Preparation of Proposals.**

The Office of Contracts requested to better define required documents for submitting a paper bid and to match current practice.

**4. Article 1102.17, E, 3, b, Contract Award Procedures (DBE).**

The Office of Contracts requested changes to comply with directive from the FHWA and as approved conceptually by FHWA.

**5. Article 1102.19, E, 5, a, 5, EEO and AA Requirements.**

The Office of Contracts requested to make wage rate requirements generic, so that it will apply to wage rates besides Davis-Bacon.

**6. Article 2408.03, Q, Assembling Steel (Steel Structures).**

The Office of Construction and Materials requested to specify no field welding of steel structures.

**7. Section 2426, Structural Concrete Repair.**

The Office of Construction and Materials requested to change the requirements for structural concrete repair.

**8. Article 2433.03, D, 1, Construction (Concrete Drilled Shaft).**

The Office of Construction and Materials requested to add a requirement for excavating drilled shafts near existing drilled shafts.

**9. Section 2523, Highway Lighting.  
Section 4185, Highway Lighting Materials.**

The Offices of Design and Traffic & Safety requested revisions to bring these sections up to date with current code and practice.

**10. Article 2527.03, F, 2, b, Two Lane Roads.**

The Office of Design requested revisions to have the specifications reflect current design and field practice.

**11. Article 2528.05, C, Temporary Barrier Rail (Traffic Control).**

The Office of Construction and Materials requested revisions to provide payment by contract modification if the contractor is required to replace or repair TBR that is damaged by public traffic.

**12. DS-12XXX, Contractor Furnished Borrow.**

The Office of Design requested approval of Developmental Specifications for Contractor Furnished Borrow.

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Wes Musgrove / Ed Kasper		<b>Office:</b> Contracts	<b>Item 1</b>
<b>Submittal Date:</b> September 5, 2013		<b>Proposed Effective Date:</b> April 2014 GS	
<b>Article No.:</b> 1102.01 <b>Title:</b> Competency and Qualification of Bidders		<b>Other:</b>	
<b>Specification Committee Action:</b> Approved with changes.			
<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/10/13	<b>Effective Date:</b> 4/15/14
<b>Specification Committee Approved Text:</b> 1102.01, H. <b>Replace the first sentence:</b> For proposals involving only the furnishing of materials, granular surfacing, lighting, buildings, asbestos removal, salvage and removal, debris removal, wells, traffic signals, pavement marking, or mowing; the following shall apply in lieu of the above requirements of this article:			
<b>Comments:</b> The Office of Contracts withdrew the second revision until they can review all of Article 1102.01 for similar revisions. The Committee will consider how this will affect locally let projects.			
<b>Specification Section Recommended Text:</b> 1102.01, H. <b>Replace the Article:</b> For proposals involving only the furnishing of materials, granular surfacing, lighting, buildings, asbestos removal, salvage and removal, debris removal, wells, traffic signals, pavement marking, or mowing, the following shall apply in lieu of the above requirements of this article:  Bidders submitting proposals must be recognized contractors engaged in the class of work provided for in the contract documents, and must possess all necessary licenses, certificates and resources to complete the work. Before the contract is awarded to a bidder, the bidder may be required to furnish evidence to the satisfaction of the Contracting Authority Department of the bidder's ability to perform and complete the contract.			
<b>Comments:</b> Should the term 'Contracting Authority' be left as is for locally let projects?			
<b>Member's Requested Change: (Do not use 'Track Changes', or 'Mark-Up'. Use Strikeout and Highlight.)</b>			
<b>1102.01 COMPETENCY AND QUALIFICATION OF BIDDERS</b>			
H. For proposals involving only the furnishing of materials, granular surfacing, lighting, buildings, asbestos removal, salvage and removal, debris removal, wells, traffic signals, pavement marking, or mowing, the following shall apply in lieu of the above requirements of this article:  Bidders submitting proposals must be recognized contractors engaged in the class of work provided for in the contract documents, and must possess all necessary licenses, certificates and resources to complete the work. Before the contract is awarded to a bidder, the bidder may be required to furnish evidence to the satisfaction of the Contracting Authority Department of the bidder's ability to perform and complete the contract.			
<b>Reason for Revision:</b> To clarify that prequalification is not required for debris removal projects. Recognizes that this work is similar to demolition/ salvage and removal projects, and will be treated the same with respect to the bidding process. Eliminates manual process to add proposal note to accomplish the same objectives.			
<b>County or City Input Needed (X one)</b>		<b>Yes</b>	<b>No</b> x

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

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Wes Musgrove / Ed Kasper		<b>Office:</b> Contracts	<b>Item 2</b>
<b>Submittal Date:</b> September 5, 2013		<b>Proposed Effective Date:</b> April 2014 GS	
<b>Article No.:</b> 1102.05 <b>Title:</b> Issuance of Proposals		<b>Other:</b>	
<b>Specification Committee Action:</b> Approved with changes.			
<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/10/13	<b>Effective Date:</b> 4/15/14
<b>Specification Committee Approved Text:</b> <b>1102.05, ISSUANCE OF PROPOSALS.</b> <b>Replace the Article:</b> Requests for proposal forms to bid construction and maintenance contracts must be filed by noon of the working day prior to the letting. These requests <del>should</del> shall be <del>on the request form provided by the Department</del> submitted via the Bid Express website (www.bidx.com). Unless otherwise specified, proposal forms will be <del>furnished</del> provided to qualified bidders who have filed properly completed <del>"Certification of Uncompleted Work Under Contract" forms (Form 650022)</del> documented uncompleted work under contract information with their request. Any contractor knowingly submitting <del>any</del> false information <del>required by Form 650022</del> related to their request may be suspended from bidding as provided in Article 1102.03.			
<b>Comments:</b> The Office of Local Systems pointed out that requests "shall" be submitted via Bid Express, as this is the only way to submit them. The Office of Contracts will make sure that Form 650022 is voided since it will no longer be used.			
<b>Specification Section Recommended Text:</b> <b>1102.05, ISSUANCE OF PROPOSALS.</b> <b>Replace the Article:</b> Requests for proposal forms to bid construction and maintenance contracts must be filed by noon of the working day prior to the letting. These requests should be <del>on the request form provided by the Department</del> submitted via the Bid Express website (www.bidx.com). Unless otherwise specified, proposal forms will be <del>furnished</del> provided to qualified bidders who have filed properly completed <del>"Certification of Uncompleted Work Under Contract" forms (Form 650022)</del> documented uncompleted work under contract information with their request. Any contractor knowingly submitting <del>any</del> false information <del>required by Form 650022</del> related to their request may be suspended from bidding as provided in Article 1102.03.			
<b>Comments:</b> How does this impact locally let projects?			
<b>Member's Requested Change: (Do not use 'Track Changes', or 'Mark-Up'. Use <b>Strikeout</b> and <b>Highlight</b>.)</b> <b>1102.05 ISSUANCE OF PROPOSALS.</b> Requests for proposal forms to bid construction and maintenance contracts must be filed by noon of the working day prior to the letting. These requests should be <del>on the submitted</del> via the Bid Express website ( <del>www.bidx.com</del> ), <del>request form provided by the Department</del> . Unless otherwise specified, proposal forms will be <del>furnished</del> provided to qualified bidders who have filed properly <del>completed</del> documented uncompleted work under contract information <del>"Certification of Uncompleted Work Under Contract" forms (Form 650022)</del> with their request. Any contractor knowingly submitting <del>any</del> false information <del>related to their request required by Form 650022</del> may be suspended from bidding as provided in Article 1102.03.			
<b>Reason for Revision:</b> Update specification language to current practice. Form 650022 is no longer used. All requests to bid as prime must now be submitted thru Bidx. No fee or subscription cost is assessed to submit these requests.			
<b>County or City Input Needed (X one)</b>	<b>Yes</b>	<b>No</b>	<b>x</b>

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

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Wes Musgrove/ Ed Kasper		<b>Office:</b> Contracts	<b>Item 3</b>
<b>Submittal Date:</b> September 5, 2013		<b>Proposed Effective Date:</b> April 2014 GS	
<b>Article No.:</b> 1102.09, A <b>Title:</b> Preparation of Proposals		<b>Other:</b>	
<b>Specification Committee Action:</b> Approved as recommended.			
<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/10/13	<b>Effective Date:</b> 4/15/14
<b>Specification Committee Approved Text:</b>			
<b>1102.09, A.</b>			
<p><b>Replace</b> the second sentence of the second paragraph:</p> <p>When prequalification is waived per Article 1102.01, H, or elsewhere in the contract documents, bidder may submit the <del>signed proposal</del> schedule of prices from the estimating proposal and the signed original bidding document on the <del>original</del> forms furnished by the <del>Contracting Authority</del> Department in lieu of submitting an electronic bid.</p>			
<p><b>Comments:</b> Local agencies should address this when using the Standard Specifications on locally let contracts; however, other proposal and bidding requirements elsewhere in the Standard Specifications also need to be addressed in that situation. When these specification changes take effect, Local Systems will send a note to the locals advising them that they should include something in their local bidding documents to “adjust” for the fact that the Department is not involved in their locally let contracts that use the DOT specifications. For example, they could include something in the proposal or notice to bidders that indicates references to the “Department” shall be replaced with the name of their local agency.</p> <p>The Office of Local Systems indicated that they plan to have all local agencies automated by 2016.</p>			
<b>Specification Section Recommended Text:</b>			
<b>1102.09, A.</b>			
<p><b>Replace</b> the second sentence of the second paragraph:</p> <p>When prequalification is waived per Article 1102.01, H, or elsewhere in the contract documents, bidder may submit the <del>signed proposal</del> schedule of prices from the estimating proposal and the signed original bidding document on the <del>original</del> forms furnished by the <del>Contracting Authority</del> Department in lieu of submitting an electronic bid.</p>			
<p><b>Comments:</b> Should the term ‘Contracting Authority’ be left as is for locally let projects?</p>			
<b>Member’s Requested Change: (Do not use ‘Track Changes’, or ‘Mark-Up’. Use <b>Strikeout</b> and <b>Highlight</b>.)</b>			
<b>1102.09 PREPARATION OF PROPOSALS.</b>			
<p><b>A.</b> Only contractors who have been authorized to bid a proposal may submit a bid for a contract.</p> <p>Unless otherwise specified, bidder shall submit an electronic bid with digital signature using bidding software furnished by the Department and electronic bid submittal procedures of the Department. When prequalification is waived per Article 1102.01, H, or elsewhere in the contract documents, bidder may submit the <b>schedule of prices from the estimating proposal and the signed original bidding document</b> <del>signed proposal</del> <del>all on the original forms</del> furnished by the <del>Contracting Authority</del> <b>Department</b> in lieu of submitting an electronic bid.</p>			
<p><b>Reason for Revision:</b> Changes apply to only paper bids which impact a very limited number of proposals. They are needed to better define required documents for submitting a paper bid and to match current practice. The documents are provided by the Department, not necessarily the contracting authority. “Original” proposals are no longer provided; they are all provided in electronic format. The bidding document is still provided as an original from the Department to help ensure that</p>			

only authorized bidders submit a bid.					
<b>County or City Input Needed (X one)</b>			<b>Yes</b>	<b>No</b> x	
<b>Comments:</b>					
<b>Industry Input Needed (X one)</b>			<b>Yes</b>	<b>No</b> x	
<b>Industry Notified:</b>	<b>Yes</b>	<b>No</b>	<b>Industry Concurrence:</b>	<b>Yes</b>	<b>No</b>
<b>Comments:</b>					



**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Wes Musgrove / Ed Kasper		<b>Office:</b> Contracts	<b>Item 4</b>
<b>Submittal Date:</b> September 25, 2013		<b>Proposed Effective Date:</b> April 2014 GS	
<b>Article No.:</b> 1102.17, E, 3, b <b>Title:</b> Contract Award Procedures (DBE)		<b>Other:</b>	
<b>Specification Committee Action:</b> Approved with changes.			
<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/10/13	<b>Effective Date:</b> 4/15/14
<b>Specification Committee Approved Text:</b>			
<b>1102.17, E, 3, b.</b>			
<b>Replace the Article:</b>			
The Department's process used to judge the Good Faith Effort of a bidder who has not met the established DBE goal is as follows:			
<b>1) <del>80% of the Goal.</del></b>			
A bidder who has achieved 80% of the established goal will be assumed to have made Good Faith Effort to achieve the goal.			
<b>2) <del>80% of the Average Commitment.</del></b>			
The Department has established the following objective measurement of Good Faith Effort. Good Faith Effort will be determined by calculating 80% of the average of the percentages of the goal and the DBE commitments submitted by all bidders satisfying Article 1103.01, and comparing the percent of DBE commitment of each bidder to that percentage average. The following example shows how the Department will compute the average DBE participation:			
<b>a) <del>Only that amount of a bidder's DBE commitment that does not exceed the established goal will be used.</del></b>			
<b>b) <del>The amount of the goal will be used as the DBE commitment amount from DBE bidders who are bidding the project as the prime contractor.</del></b>			
<b>c) <del>The commitments to DBE firms who are affiliates of the bidder will not be included in the calculation.</del></b>			
<b>d) <del>The project DBE Goal will be included in the computation.</del></b>			
Example:			
80% of the Average Good Faith Effort calculation			
Project Proposal has a 10% Goal for DBE participation = 10.0%			
Contractor "A" submits a commitment of 11.8% = 10.0%			
Contractor "B" submits a commitment of 7.0% = 7.0%			
Contractor "C" submits a commitment of 11.4% (of which 4.0% was committed to a DBE affiliate) = 7.4%			
Contractor "D" submits a commitment of 3.6% = 3.6%			
Contractor "E" is a DBE = 10.0%			
Sum of Commitments = 48.0%			
Average DBE Commitment = 48.0 / 6 = 8.0%			
80% of the Average Commitment = 80% of 8.0 = 6.4%			

Contractors "A", "C", and "E" would all be responsive for meeting the DBE goal. Contractor "B" would be responsive for meeting 80% of the Average DBE Commitment. Contractor "D" would not be responsive for meeting 80% of the Average DBE Commitment. Should the low bidder's DBE commitment be lower than 80% of the average, with the contract goal included in the calculation, that bidder will be considered non-responsive for Good Faith Effort to meet the project DBE goal. If the lowest bid is non-responsive due to lack of Good Faith Effort, the next bidder is compared to this 80% of the average commitment until a bidder is identified as having made a Good Faith Effort to achieve the DBE goal.

**4) Administrative Reconsideration of Project Specific Good Faith Effort.**

a) Contractors who have not met the specified DBE goal or have not been determined to have demonstrated Good Faith Effort by the above methods can request administrative reconsideration of their Good Faith Effort.

b) Within 2 business days after the deadline for bid submittal, the Department will use the two Good Faith Effort methods to determine which bidders have made a Good Faith Effort to meet the DBE goal on each proposal for which bids were received. The Department will contact all otherwise lowest responsive bidders who have not met any of the Good Faith Effort criteria and offer that bidder an opportunity for an Administrative Reconsideration meeting with the Department's Administrative Reconsideration Committee. This committee consists of representatives from the Department's Offices of Contracts, Construction, and Employee Services. The bidder shall request the Administrative Reconsideration meeting within 1 business day of the Department's offer of an Administrative Reconsideration meeting.

**1) Good Faith Effort Evaluation Committee.**

a) When the apparent low bidder does not meet the DBE goal with the commitment listed in their DBE Commitment Form (Form 102115), their good faith effort to meet the goal will initially be determined by the Good Faith Effort Evaluation Committee.

b) This committee will be comprised of three members of the Department appointed by the Director. They will meet within one business day following the letting and will only consider only information provided on the bidder's DBE Commitment Form (Form 102115).

c) In the event the committee determines the bidder performed a good faith effort, their bid will be determined responsive for meeting the DBE goal and will be further considered for award. In the event the committee determines the bidder did not perform a good faith effort, the bidder will be denied award. A written decision will be issued.

d) A bidder denied award by the Good Faith Effort Evaluation Committee may appeal the decision to the Good Faith Effort Evaluation Administrative Review Committee by request to the Contracts Engineer. The bidder will be allowed one business day following the committee's written decision to request an appeal. If an appeal is not requested, the Good Faith Effort Evaluation evaluation process starts over with the next lowest bidder.

**2) Good Faith Effort Administrative Review Committee.**

a) The Department's Good Faith Effort Administrative Review Committee will consist of three members of the Department appointed by the Director. The members will not have been involved in the original evaluation of Good Faith Effort.

b) The bidder must request appeal from the Contracts Engineer within one business day of being notified of the decision by the Good Faith Effort Evaluation Committee. The bidder will have the opportunity for a face to face meeting with the committee and to provide written documentation of their efforts. The Good Faith Effort Administrative Review Committee will meet within one business day of the request and will issue a written decision to the bidder.

c) Any bidder who has requested Administrative Reconsideration Review shall not adjust their DBE Commitment or provide any additional documentation of DBE firms contacted that were not listed on Form 102115. However, the bidder will be allowed to provide documentation on other Good Faith Efforts they did to utilize DBE firms that are listed on Form 102115. Only those efforts prior to the bid deadline will be

considered. These efforts may include:

- (1) Efforts to provide interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
  - (2) Written documentation of negotiation with certified DBE firms including the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
  - (3) Written documentation of follow-ups made after the initial solicitations to encourage DBE firms to quote.
  - (4) Written documentation that the DBE firm's quote was not reasonable or that the DBE firm was not capable of performing the work for which they quoted. The fact that there may be some additional costs involved in finding and using DBE firms is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make Good Faith Efforts.
  - (5) Written documentation of efforts to assist interested DBE firms in obtaining bonding, lines of credit, or insurance as required by the specifications.
  - (6) Written documentation of efforts to assist interested DBE firms in obtaining necessary equipment, supplies, materials, or related assistance or services needed for the project.
  - (7) Other activities of the bidder that by their quality, quantity, and intensity demonstrate that the bidder took all necessary and reasonable steps to achieve the contract goal, and could reasonably have expected to do so but were unsuccessful.
- d) The determination made by the Good Faith Effort Administrative Reconsideration Review Committee shall be considered final.
  - e) In the event the bidder's appeal is denied by the Good Faith Effort Administrative Review Committee, the Good Faith Effort Evaluation process starts over with the next lowest bidder.
- 3) The Department may perform validation of any Good Faith Effort information submitted by any bidder.

**Comments:** The District 6 Office questioned if "goal" and "commitment" need to be better defined, as they are sometimes confused in the field. The "goal" is what the Department sets and appears on the proposal form. The "commitment" is what the Contractor submits and must adhere to during the project. The Office of Contracts will review to see if language needs to be added to clarify this. The Specifications Section would propose that any new language regarding the "goal" and "commitment" be added to the first paragraph of Article 1102.17, E.

"Evaluation" was removed from all instances of "Good Faith Effort Administrative Review Committee".

**Specification Section Recommended Text:**

**1102.17, E, 3, b.**

**Replace the Article:**

The Department's process used to judge the Good Faith Effort of a bidder who has not met the established DBE goal is as follows:

**1) ~~80% of the Goal.~~**

~~A bidder who has achieved 80% of the established goal will be assumed to have made Good Faith Effort to achieve the goal.~~

**2) ~~80% of the Average Commitment.~~**

~~The Department has established the following objective measurement of Good Faith Effort. Good Faith Effort will be determined by calculating 80% of the average of the percentages of the goal and the DBE commitments submitted by all bidders satisfying Article 1103.01, and comparing the percent of DBE commitment of each bidder to that percentage average.~~

The following example shows how the Department will compute the average DBE participation:

- a) Only that amount of a bidder's DBE commitment that does not exceed the established goal will be used.
- b) The amount of the goal will be used as the DBE commitment amount from DBE bidders who are bidding the project as the prime contractor.
- c) The commitments to DBE firms who are affiliates of the bidder will not be included in the calculation.
- d) The project DBE Goal will be included in the computation.

Example:

80% of the Average Good Faith Effort calculation  
 Project Proposal has a 10% Goal for DBE participation = 10.0%

Contractor "A" submits a commitment of 11.8% = 10.0%

Contractor "B" submits a commitment of 7.0% = 7.0%

Contractor "C" submits a commitment of 11.4%  
 (of which 4.0% was committed to a DBE affiliate) = 7.4%

Contractor "D" submits a commitment of 3.6% = 3.6%

Contractor "E" is a DBE = 10.0%

Sum of Commitments = 48.0%

Average DBE Commitment = 48.0 / 6  
 = 8.0%

80% of the Average Commitment = 80% of 8.0 = 6.4%

Contractors "A", "C", and "E" would all be responsive for meeting the DBE goal. Contractor "B" would be responsive for meeting 80% of the Average DBE Commitment. Contractor "D" would not be responsive for meeting 80% of the Average DBE Commitment. Should the low bidder's DBE commitment be lower than 80% of the average, with the contract goal included in the calculation, that bidder will be considered non-responsive for Good Faith Effort to meet the project DBE goal. If the lowest bid is non-responsive due to lack of Good Faith Effort, the next bidder is compared to this 80% of the average commitment until a bidder is identified as having made a Good Faith Effort to achieve the DBE goal.

**4) Administrative Reconsideration of Project Specific Good Faith Effort.**

- a) Contractors who have not met the specified DBE goal or have not been determined to have demonstrated Good Faith Effort by the above methods can request administrative reconsideration of their Good Faith Effort.
- b) Within 2 business days after the deadline for bid submittal, the Department will use the two Good Faith Effort methods to determine which bidders have made a Good Faith Effort to meet the DBE goal on each proposal for which bids were received. The Department will contact all otherwise lowest responsive bidders who have not met any of the Good Faith Effort criteria and offer that bidder an opportunity for an Administrative Reconsideration meeting with the Department's Administrative Reconsideration Committee. This committee consists of representatives from the Department's Offices of Contracts, Construction, and Employee Services. The bidder shall request the Administrative Reconsideration meeting within 1 business day of the Department's offer of an Administrative Reconsideration meeting.

**4) Good Faith Effort Evaluation Committee.**

- e) When the apparent low bidder does not meet the DBE goal with the commitment listed in their DBE Commitment Form (Form 102115), their good faith effort to meet the goal

will initially be determined by the Good Faith Effort Evaluation Committee.

- f) This committee will be comprised of three members of the Department appointed by the Director. They will meet within one business day following the letting and will only consider only information provided on the bidder's DBE Commitment Form (Form 102115).
  - g) In the event the committee determines the bidder performed a good faith effort, their bid will be determined responsive for meeting the DBE goal and will be further considered for award. In the event the committee determines the bidder did not perform a good faith effort, the bidder will be denied award. A written decision will be issued.
  - h) A bidder denied award by the Good Faith Effort Evaluation Committee may appeal the decision to the Good Faith Effort Evaluation Administrative Review Committee by request to the Contracts Engineer . The bidder will be allowed one business day following the committee's written decision to request an appeal. If an appeal is not requested, the Good Faith Effort Evaluation evaluation process starts over with the next lowest bidder.
- 5) Good Faith Effort Administrative Review Committee.**
- c) The Department's Good Faith Effort Evaluation Administrative Review Committee will consist of three members of the Department appointed by the Director. The members will not have been involved in the original evaluation of Good Faith Effort Evaluation.
  - d) The bidder must request appeal from the Contracts Engineer within one business day of being notified of the decision by the Good Faith Effort Evaluation Committee. The bidder will have the opportunity for a face to face meeting with the committee and to provide written documentation of their efforts. The Good Faith Effort Evaluation Administrative Review Committee will meet within one business day of the request and will issue a written decision to the bidder.
  - c) Any bidder who has requested Administrative ~~Reconsideration~~ Review shall not adjust their DBE Commitment or provide any additional documentation of DBE firms contacted that were not listed on Form 102115. However, the bidder will be allowed to provide documentation on other Good Faith Efforts they did to utilize DBE firms that are listed on Form 102115. Only those efforts prior to the bid deadline will be considered. These efforts may include:
    - (1) Efforts to provide interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
    - (2) Written documentation of negotiation with certified DBE firms including the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
    - (3) Written documentation of follow-ups made after the initial solicitations to encourage DBE firms to quote.
    - (4) Written documentation that the DBE firm's quote was not reasonable or that the DBE firm was not capable of performing the work for which they quoted. The fact that there may be some additional costs involved in finding and using DBE firms is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make Good Faith Efforts.
    - (5) Written documentation of efforts to assist interested DBE firms in obtaining bonding, lines of credit, or insurance as required by the specifications.
    - (6) Written documentation of efforts to assist interested DBE firms in obtaining necessary equipment, supplies, materials, or related assistance or services needed for the project.
    - (7) Other activities of the bidder that by their quality, quantity, and intensity demonstrate that the bidder took all necessary and reasonable steps to achieve

the contract goal, and could reasonably have expected to do so but were unsuccessful.

- d) The determination made by the Good Faith Effort Evaluation Administrative Reconsideration Review Committee shall be considered final.
- e) In the event the bidder's appeal is denied by the Good Faith Effort Evaluation Administrative Review Committee, the Good Faith Effort Evaluation process starts over with the next lowest bidder.
- 6) The Department may perform validation of any Good Faith Effort Evaluation information submitted by any bidder.

**Comments:**

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

**E. Contract Award Procedures**

**3. Bidder Selection.**

a. The successful bidder will be selected on the basis of having submitted the lowest responsive bid. Bidders shall make a Good Faith Effort to achieve the DBE goal in order to be responsive. Contractors who meet or exceed the proposed contract goal will be assumed to have made Good Faith Effort to utilize DBE firms. DBE firms who bid as prime contractors will be considered to have met the goal.

b. The Department's process used to judge the Good Faith Effort of a bidder who has not met the established DBE goal is as follows:

**1) ~~80% of the Goal.~~**

A bidder who has achieved 80% of the established goal will be assumed to have made Good Faith Effort to achieve the goal.

**2) ~~80% of the Average Commitment.~~**

The Department has established the following objective measurement of Good Faith Effort. Good Faith Effort will be determined by calculating 80% of the average of the percentages of the goal and the DBE commitments submitted by all bidders satisfying Article 1103.01, and comparing the percent of DBE commitment of each bidder to that percentage average. The following example shows how the Department will compute the average DBE participation:

a) ~~Only that amount of a bidder's DBE commitment that does not exceed the established goal will be used.~~

b) ~~The amount of the goal will be used as the DBE commitment amount from DBE bidders who are bidding the project as the prime contractor.~~

c) ~~The commitments to DBE firms who are affiliates of the bidder will not be included in the calculation.~~

d) ~~The project DBE Goal will be included in the computation.~~

Example:

80% of the Average Good Faith Effort calculation

Project Proposal has a 10% Goal for DBE participation = 10.0%

Contractor "A" submits a commitment of 11.8% = 10.0%

Contractor "B" submits a commitment of 7.0% = 7.0%

Contractor "C" submits a commitment of 11.4%  
(of which 4.0% was committed to a DBE affiliate) = 7.4%

Contractor "D" submits a commitment of 3.6% = 3.6%

Contractor "E" is a DBE = 10.0%

Sum of Commitments = 48.0%

Average DBE Commitment = 48.0 / 6 = 8.0%

80% of the Average Commitment = 80% of 8.0 = 6.4%

Contractors "A", "C", and "E" would all be responsive for meeting the DBE goal. Contractor "B" would be responsive for meeting 80% of the Average DBE Commitment. Contractor "D" would not be responsive for meeting 80% of the Average DBE Commitment. Should the low bidder's DBE commitment be lower than 80% of the average, with the contract goal included in the calculation, that bidder will be considered non-responsive for Good Faith Effort to meet the project DBE goal. If the lowest bid is non-responsive due to lack of Good Faith Effort, the next bidder is compared to this 80% of the average commitment until a bidder is identified as having made a Good Faith Effort to achieve the DBE goal.

1) Good Faith Effort Evaluation Committee

When the apparent low bidder does not meet the DBE goal with the commitment listed in their DBE Commitment Form (Form 102115) their good faith effort to meet the goal will initially be determined by the Good Faith Effort Evaluation Committee.

This committee will be comprised of three members of the Department appointed by the Director. They will meet within one business day following the letting and will consider only the information provided on the bidders DBE Commitment Form (Form 102115).

In the event the committee determines that the bidder performed a good faith effort, their bid will be determined responsive for meeting the DBE goal and will be further considered for award. In the event the committee determines that the bidder did not perform a good faith effort, the bidder will be denied award. A written decision will be issued.

A bidder denied award by the GFE Evaluation Committee may appeal that decision to the GFE Administrative Review Committee by request to the Contracts Engineer. The bidder will be allowed one business day following the committee's written decision to request an appeal. If an appeal is not so requested, the GFE evaluation process starts over with the next lowest bidder.

2) Good Faith Effort Administrative Review Committee

The Department's GFE Administrative Review Committee will consist of three members of the Department appointed by the Director. The members will not have been involved in the original evaluation of GFE.

The bidder must request appeal from the Contracts Engineer within one business day of being notified of the decision made by the GFE Evaluation Committee. The bidder will have the opportunity for a face to face meeting with the committee and to provide written documentation of their efforts. The GFE Administrative Review Committee will meet within one business day of the request and will issue a written decision to the bidder.

4) ~~Administrative Reconsideration of Project Specific Good Faith Effort.~~

~~a) Contractors who have not met the specified DBE goal or have not been determined to have demonstrated Good Faith Effort by the above methods can request administrative reconsideration of their Good Faith Effort.~~

~~b) Within 2 business days after the deadline for bid submittal, the Department will use the three two Good Faith Effort methods to determine which bidders have made a Good Faith Effort to meet the DBE goal on each proposal for which bids were received. The Department will contact all otherwise lowest responsive bidders who have not met any of the Good Faith Effort criteria and offer that bidder an opportunity for an Administrative Reconsideration meeting with the Department's Administrative Reconsideration Committee. This committee consists of representatives from the Department's Offices~~

~~of Contracts, Construction, and Employee Services. The bidder shall request the Administrative Reconsideration meeting within 1 business day of the Department's offer of an Administrative Reconsideration meeting.~~

- e) Any bidder who has requested Administrative Reconsideration shall not adjust their DBE Commitment or provide any additional documentation of DBE firms contacted that were not listed on Form 102115. However, the bidder will be allowed to provide documentation on other Good Faith Efforts they did to utilize DBE firms that are listed on Form 102115. **Only those efforts prior to the bid deadline will be considered.** These efforts may include:
  - (1) Efforts to provide interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
  - (2) Written documentation of negotiation with certified DBE firms including the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
  - (3) Written documentation of follow-ups made after the initial solicitations to encourage DBE firms to quote.
  - (4) Written documentation that the DBE firm's quote was not reasonable or that the DBE firm was not capable of performing the work for which they quoted. The fact that there may be some additional costs involved in finding and using DBE firms is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make Good Faith Efforts.
  - (5) Written documentation of efforts to assist interested DBE firms in obtaining bonding, lines of credit, or insurance as required by the specifications.
  - (6) Written documentation of efforts to assist interested DBE firms in obtaining necessary equipment, supplies, materials, or related assistance or services needed for the project.
  - (7) **Other activities of the bidder that by their quality, quantity and intensity demonstrate that the bidder took all necessary and reasonable steps to achieve the contract goal, and could reasonably have expected to do so but were unsuccessful.**
- d) The determination made by the Administrative Reconsideration Committee shall be considered final.

**In the event the bidder's appeal is denied by the GFE Administrative Review Committee, the GFE evaluation process starts over with the next lowest bidder.**

- 3) **The Department may perform validation of any GFE information submitted by any bidder.**

**Reason for Revision:** To comply with attached directive from the FHWA and as approved conceptually by FHWA.

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





# Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

Phone: 515-239-1340

Fax: 515-239-1175

September 6, 2013

Rebecca H. Hiatt, P.E.  
FHWA – Iowa Division  
105 6<sup>th</sup> Street  
Ames, IA 50010

Ms. Hiatt:

In response to your letter on February 12, 2013, the Iowa Department of Transportation (Iowa DOT) would like to present the Federal Highway Administration (FHWA), Iowa division with the proposed changes to the Iowa DOT Disadvantaged Business Enterprise (DBE) Program's Good Faith Effort process.

Through a series of internal meetings the attached suggested changes were created. We feel we have captured the essence of the federal DBE program and the critical need for determining good faith effort while bidding on projects with a DBE goal.

Upon receiving concurrence from FHWA-Iowa division, the Iowa DOT will meet with AGC Iowa and other members of the contracting community to educate those interested parties in the new process. Additionally, the Iowa DOT anticipates discussing and making the necessary changes to our Standard Specifications during the regularly scheduled Spec committee meeting in October; with the changes taking effect by the April 2014 goal setting.

I welcome your feedback and suggestions and look forward to receiving FHWA-Iowa division concurrence.

Sincerely,

A handwritten signature in blue ink, appearing to read "Lee Wilkinson".

Lee Wilkinson  
Director, Operations and Finance Division

Enclosure

# Proposed DBE Contract Goal Good Faith Effort Evaluation

## Process

July 20, 2013

### Background

Federal regulations require that contracts with a DBE goal be awarded only to the bidder who makes a good faith effort (GFE) to meet the goal.

There are two methods to perform GFE. First, meet the contract goal. Second: *the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.* DOT will not deny award to a contractor who has performed a good faith effort (and meets all other requirements).

For many years the specification used five criteria to evaluate GFE. In order of consideration these were:

1. Meet the goal
2. Meet 80% of the goal
3. Meet 80% of the average of the bidders including the goal
4. History of utilizing DBEs
5. Administrative reconsideration

The current regulations (49 CFR 26.53) do not prohibit quantitative formulas, they only say they are not required, from Appendix A: *We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call: **meeting quantitative formulas is not required*** (emphasis added).

In September 2012 USDOT issued a Notice of Proposed Rulemaking to the DBE regulations (NPRM). There are a number of proposed changes including the following: *"Determinations **should not be made using quantitative formulas*** (emphasis added). The impact of the proposed changes cannot be fully evaluated until a final rule is issued.

On December 21, 2012 the Iowa Division Office of FHWA directed the Department to "immediately cease and desist from further implementation" of a history of utilizing DBEs. That has been accomplished. The letter also instructed the Department to revise its procedures to eliminate 80% of the goal and 80% of the average and revise its GFE review criteria. This report describes a proposed process to replace those criteria.

### Process goals

Fair evaluation of bidder's efforts to meet contract goal  
Prohibit post letting changes to bid or commitment  
Prohibit bid shopping  
Convenient process for industry and the Department  
Timely award determination  
Comply with the current regulations and not necessarily those in the NPRM

### **Proposed Process**

- **Step #1 Meet Goal**

Bidder submits a DBE commitment (Form 102115) with their bid that meets or exceeds the contract goal. No further action necessary.

- **Step #2 GFE Evaluation Committee**

The apparent low bidder submits a DBE commitment (Form 102115) with their bid that is less than the contract goal.

The Department's GFE Evaluation Committee will evaluate the bidder's efforts. The committee will consist of three members appointed by the Director.

When the apparent low bidder has not met the goal, the committee will meet within one business day following the letting to consider the apparent low bidders GFE. In the event the committee determines that the bidder performed a GFE, their bid will be determined responsive for meeting the DBE goal and will be further considered for award. In the event the committee determines that the bidder did not perform a GFE they will be denied award. A written decision will be issued.

A bidder denied award by the GFE Evaluation Committee may appeal that decision to the GFE Administrative Review Committee. The bidder will be allowed one business day to request an appeal. If an appeal is not so requested, the GFE evaluation process starts over with the next lowest bidder.

- **Step #3 GFE Administrative Review Committee**

The apparent low bidder submits a DBE commitment with their bid that is less than the contract goal, is denied award by the GFE Evaluation Committee and appeals that decision to the GFE Administrative Review Committee.

The Department's GFE Administrative Review Committee will consist of three members appointed by the Director. The members will not have been involved in the original evaluation of GFE.

The bidder must request appeal within one business day of being notified of the decision made by the GFE Evaluation Committee. A verbal request is acceptable. The bidder will have the opportunity for a face to face meeting with the committee and to provide written documentation of their efforts. The GFE Administrative Review Committee will issue a written decision to the bidder. This decision is administratively final.

In the event the bidder's appeal is denied. The GFE evaluation process starts over with the next lowest bidder.

### **GFE Evaluation Committee Information Submittal**

The committee will consider only the information submitted on the contractors DBE Commitment (Form 102115).



### **Administrative Review Committee information submittal**

Information provided is a description of the bidder's efforts to perform a GFE to meet the contract goal, when they did not actually meet the goal. It is supplemental to the DBE commitment information as currently provided on the Form 102115.

It is documentation that describes and demonstrates the bidder's efforts to achieve the DBE contract goal. This may include project specific as well as on-going company-wide efforts. The following information may be requested:

- Solicitation of DBE participation and determination of DBE interest  
“...bidder must determine with certainty if the DBEs are interested...” (49 CFR Part 26 Appendices A)
- DBE participation opportunities identified by the prime
- Assistance to respond to solicitations
- Negotiation efforts
- Process and factors to determine acceptance or rejection of DBE offers
- Assistance to obtain bonding, credit, insurance, equipment, supplies, or related assistance
- Copies of each DBE and non-DBE quote when a non-DBE was selected instead of a DBE. This is required documentation in the NPRM.

The bidder will not be allowed to change their DBE commitment and only those efforts made prior to the bid deadline will be considered. With regard to project specific activity, only those efforts directed toward DBE firms listed on the bidders Statement of DBE Commitments (Form 102115) will be considered.

The initial submittal is not expected to be so complete as to prove the actions took place. For example actual phone or fax logs would not have to be sent in, only a listing of those activities. However, the Administrative Review Committee may request additional documentation from the bidder, DBEs or others as necessary to substantiate and validate the efforts presented in the original submittal. Furthermore the Office of Employee Services, Civil Rights Section may perform routine monitoring of any GFE information submitted by any bidder to ensure validity.

Information submittal should be electronic via email if at all possible. The bidder will be allowed one business day to provide requested information.

### **Evaluation Considerations**

Both the GFE Evaluation Committee and the GFE Administrative Review Committee are tasked to make a fair and reasonable determination whether a bidder who did not meet the goal made adequate efforts to do so. The committee should look at the quality, quantity and intensity of the bidder's efforts. The efforts should be those demonstrated by a contractor who desires to meet the goal and is not just taking steps to meet a requirement.

Issues that may be considered:

- "...performance of other bidders in meeting the contract." (49 CFR Part 26 Appendices A)
- Follow up actions "...bidder must determine with certainty if the DBEs are interested..." (49 CFR Part 26 Appendices A )
- Bid solicitations: who, what work
- DBE opportunities available/considered: sub work, material supply, trucking, brokers; breaking out work, flexible timelines
- Bonding assistance
- Plan reading assistance
- Technical assistance
- Cost
- Past performance
- Capability
- A comparable consideration as for non-DBEs regarding qualification, capability, price, etc.
- Networking efforts
- Correspondence documentation: phone, fax, verbal, written
- Verbal communication between DOT and industry (prime, DBE, others)
- Other efforts to secure DBE participation – general/annual vs. project specific

### **Implementation timeline**

Lee Wilkinson's letter of April 3, 2013 estimated that a draft specification change to implement these changes will be considered at the October 2013 meeting of the Specification Committee, with final approval at the November 2013 meeting. This allows implementation with the April 2014 General Supplemental Specification.

### **Additional considerations**

- Locally let federal aid contracts
- Consultant contracts – DOT and locals



# Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

Phone: 515-239-1340

Fax: 515-239-1175

September 6, 2013



Rebecca H. Hiatt, P.E.  
FHWA – Iowa Division  
105 6<sup>th</sup> Street  
Ames, IA 50010

Ms. Hiatt:

In response to your letter on February 12, 2013, the Iowa Department of Transportation (Iowa DOT) would like to present the Federal Highway Administration (FHWA), Iowa division with the proposed changes to the Iowa DOT Disadvantaged Business Enterprise (DBE) Program's Good Faith Effort process.

Through a series of internal meetings the attached suggested changes were created. We feel we have captured the essence of the federal DBE program and the critical need for determining good faith effort while bidding on projects with a DBE goal.

Upon receiving concurrence from FHWA-Iowa division, the Iowa DOT will meet with AGC Iowa and other members of the contracting community to educate those interested parties in the new process. Additionally, the Iowa DOT anticipates discussing and making the necessary changes to our Standard Specifications during the regularly scheduled Spec committee meeting in October; with the changes taking effect by the April 2014 goal setting.

I welcome your feedback and suggestions and look forward to receiving FHWA-Iowa division concurrence.

Concur 9/10/13  
~~APPROVED~~ Date  
*Rebecca H. Hiatt*  
FOR THE DIVISION ADMINISTRATOR  
FEDERAL HIGHWAY ADMINISTRATION

Sincerely,

Lee Wilkinson  
Director, Operations and Finance Division

Enclosure



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**Iowa Division**

105 Sixth Street  
Ames, Iowa 50010-6337  
(515) 233-7300  
(515) 233-7499  
[www.fhwa.dot.gov/iadiv](http://www.fhwa.dot.gov/iadiv)

In Reply Refer To:  
HDA-IA

December 21, 2012

Mr. Lee Wilkinson, Director  
Operations and Finance Division  
Iowa Department of Transportation  
800 Lincoln Way  
Ames, Iowa 50010

SUBJECT: Disadvantage Business Enterprise (DBE) Program Plan

Dear Mr. Wilkinson:

The Iowa Department of Transportation (Iowa DOT) submitted its DBE Program Plan for approval on February 1, 2012. The Iowa Division proceeded with the approval process in accordance with the provisions of 49 CFR §26. The Federal Highway Administration Office of Civil Rights cannot approve the plan until areas of concern described in the enclosed letter have been addressed. The Office of Civil Rights requests a status update by January 31, 2013.

If you have any questions, please contact Kim Anderson at [Kimberly.Anderson@dot.gov](mailto:Kimberly.Anderson@dot.gov) or 515-233-7324.

Sincerely,

Lubin M. Quinones  
Divisionb administrator

Enclosure

ec: w/enclosure  
Todd Sadler, Iowa DOT



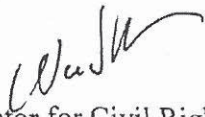


U.S. Department  
of Transportation  
Federal Highway  
Administration

# Memorandum

Subject: **ACTION:** Iowa DOT DBE Program  
(Reply Due: 1/31/13)

Date: December 13, 2012

From: Warren S. Whitlock   
Associate Administrator for Civil Rights

In Reply Refer To:  
HCR-30

To: Mr. Lubin Quinones  
Division Administrator, HDA-IA  
Ames, Iowa

Your office submitted a copy of the Iowa Department of Transportation's (Iowa DOT) DBE program plan, revised February 1, 2012, for HCR's review and approval. As Iowa's DBE program plan may have received Federal Highway Administration approval in the past, please note that as the United States Department of Transportation (USDOT) DBE program evolves through regulation change, guidance and case law, narrow tailoring of a recipient's program becomes increasingly important. In reviewing the plan, we identified the following areas of concern that must be addressed before this plan can be approved by our office. The page numbers below refer to the Iowa DOT DBE program plan.

- Page 13: Process to judge good faith efforts of bidders who have not met the contract goal. The document provides that bidders who have achieved 80 percent of the established contract DBE goal will be assumed to have made a good faith effort.

Further, Iowa DOT determines the sufficiency of a bidder's good faith efforts by calculating 80 percent of the average of the percentages of the DBE commitments submitted by all bidders on the contract. If the low bidder exceeds this average, it is assumed to have made a good faith effort despite having fallen short of the goal.

These objective considerations do not conform to the Federal regulations with respect to an appropriate good faith efforts analysis. Contract goals should be reasonable and attainable and narrowly tailored to reflect the specific subcontracting opportunities available on a contract and the availability and capacity of DBEs in the market area that perform the relevant work types. Bidders who do not meet the contract goal must undergo a thorough and robust review by



the State DOT to determine if the bidder submitted sufficient documentation to “show that it took all necessary and reasonable steps to achieve a DBE goal . . . which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.” 49 CFR, Appendix A.

The regulations do not provide that the achievement of 80 percent of the goal is sufficient; nor do they provide 80 percent of the average of all bidders’ DBE commitments is sufficient. The USDOT does not encourage the use of such quantitative formulas. Rather, it is the responsibility of the Iowa DOT to evaluate each bidder’s documented efforts and make a judgment call with respect to their sufficiency in light of all the facts and circumstances involved, e.g., ability of other bidder’s to meet the goal as evidence of goal attainability; evidence of a bidder’s “active and aggressive” efforts to seek out specific DBEs; efforts to follow up and negotiate fairly with DBEs--even accepting a higher price, if not unreasonable, in order to meet the contract goal.

Please work with the Iowa DOT to revise its program plan and procedures to conform to the Federal regulations as they pertain to good faith effort reviews. Further, please ensure that the DBE Liaison Officer or member of the Iowa DOT’s civil rights section is involved in good faith efforts evaluations.

- Page 35: Attachment D “Contractors with History of Utilizing DBE’s Good Faith Efforts (GFE) Program”. Attachment D provides that Iowa DOT will evaluate a prime contractor’s prior use of DBE firms by awarding a prime “one point for each percentage of subcontracted dollars awarded to a DBE subcontractor and an additional point for each percentage going to a DBE/ESB.” Contractors with enough points to exceed 67 percent of Iowa DOT’s annual DBE goal; and who have been awarded at least two contracts in the last 24 months; and who have been awarded a dollar amount at least twice the size of a contract currently under consideration, will be assumed to have made a good faith effort to achieve the DBE goal.

This method of evaluating a prime contractor’s good faith efforts to achieve a DBE contract goal meets neither the letter nor the intent of the DBE regulations. The DBE program is meant to create opportunities for small disadvantaged firms that have been historically excluded from the construction industry on Federal-assisted contracts in which subcontracting is an option. The fact that a prime contractor used a DBE subcontractor two years ago does not provide needed jobs for DBEs today.

Please inform the Iowa DOT that it must immediately cease and desist from further implementation of this practice and revise its program plan to eliminate this method of evaluating good faith efforts.

- Page 6: Joint checks. The program plan's section on the use of joint checks must contain more detail. For example, Iowa DOT should specifically list safeguards to prevent the use of joint checks in ways that would result in the denial of DBE credit or would compromise the independence of a DBE firm. Please direct Iowa DOT to the USDOT guidance for specific information on what a recipient's joint check policy and procedure should contain: <http://www.osdbu.dot.gov/DBEProgram/dbeqna.cfm> and scroll to questions pertaining to 49 CFR 25.55(c)(1).

Should you have any questions pertaining to this memorandum, please contact Martha Kenley at 202-366-8110, or [martha.kenley@dot.gov](mailto:martha.kenley@dot.gov). In addition, please provide Ms. Kenley with a status update on the resolution of these program deficiencies by January 31, 2013. We value your assistance in this important matter.

cc: Kimberly Anderson, Civil Rights Manager, FHWA Iowa Division  
Martha Kenley, National DBE Program Manager, FHWA

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Wes Musgrove / Ed Kasper		<b>Office:</b> Contracts	<b>Item 5</b>
<b>Submittal Date:</b> September 5, 2013		<b>Proposed Effective Date:</b> April 2014 GS	
<b>Article No.:</b> 1102.19, E, 5, a, 5 <b>Title:</b> EEO and AA Requirements		<b>Other:</b>	
<b>Specification Committee Action:</b> Approved with changes.			
<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/10/13	<b>Effective Date:</b> 4/15/14
<b>Specification Committee Approved Text:</b> <b>1102.19, E, 5, a, 5.</b> <b>Replace the Article:</b> <del>Current Iowa Predetermined Wage Rate Decision, identifying Davis/Bacon predetermined wage rates for the State of Iowa.</del> All wage rate decisions required by the contract. The wage rate decision shall be arranged on a bulletin board so that all wage rate and classification information is visible.			
<b>Comments:</b> The Office of Contracts requested to change the language from "included in" to "required by".			
<b>Specification Section Recommended Text:</b> <b>1102.19, E, 5, a, 5.</b> <b>Replace the Article:</b> <del>Current Iowa Predetermined Wage Rate Decision, identifying Davis/Bacon predetermined wage rates for the State of Iowa.</del> All wage rate decisions included in the contract. The wage rate decision shall be arranged on a bulletin board so that all wage rate and classification information is visible.			
<b>Comments:</b>			
<b>Member's Requested Change: (Do not use 'Track Changes', or 'Mark-Up'. Use Strikeout and Highlight.)</b> <b>1102.19 EQUAL EMPLOYMENT OPPORTUNITY AND AFFIRMATIVE ACTION REQUIREMENTS</b>  <b>E. Dissemination of Policy.</b> <b>5. Placement of EEO/AA Notices and Posters.</b> <b>a.</b> The Contractor shall place the following notices and posters on a bulletin board at the project site in areas readily accessible to employees and potential employees. <b>1)</b> Notice provided by the Iowa DOT listing the names, addresses, and phone numbers of the Contractor and all approved subcontractors. <b>2)</b> Publication OFCCP 1420, stating "Equal Employment Opportunity is THE LAW". <b>3)</b> Form FHWA-1022, regarding any false statement, false representation, false report, or false claim made in connection with any Federal or Federal-aid highway or related project. <b>4)</b> Form FHWA-1495, regarding wage rate information for a Federal-aid highway project, required only if Davis/Bacon predetermined wage rates apply to the project. Form WH-1321, Employee Rights Under the Davis-Bacon Act, required only if Davis/Bacon predetermined wage rates apply to the project. <b>5)</b> <del>Current Iowa Predetermined Wage Rate Decision, identifying Davis/Bacon predetermined wage rates for the State of Iowa.</del> All Wage Rate Decisions included in the contract. The wage rate decision shall be arranged on a bulletin board so that all wage rate and classification information is visible.			
<b>Reason for Revision:</b> Current specification language is silent regarding the requirement to post a border-state's wage rate. The proposed revision language and posting requirement is generic and would apply to any and all wage rates included in the contract, Davis-Bacon or otherwise.			

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

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Greg Mulder/Wayne Sunday		<b>Office:</b> Construction & Materials		<b>Item 6</b>	
<b>Submittal Date:</b> 2013.09.26			<b>Proposed Effective Date:</b> April 15, 2014		
<b>Article No.:</b> 2408.03, Q <b>Title:</b> Assembling Steel (Steel Structures)			<b>Other:</b>		
<b>Specification Committee Action:</b> Approved as recommended.					
<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/10/13	<b>Effective Date:</b> 4/15/14		
<b>Specification Committee Approved Text:</b> See Specification Section Recommended Text.					
<b>Comments:</b> The Office of Construction and Materials indicated that the only time welding is typically allowed in the field is for bearing attachment, so the bearings can be accurately placed. The Engineer will need to approve the Contractor's welding procedure prior to any field welding.					
<b>Specification Section Recommended Text:</b> <b>2408.03, Q, Assembling Steel.</b> <b>Add the Article:</b> <b>5. Do not weld on any steel during or after assembly unless welding is specified in the contract documents and with prior approval of the Engineer.</b>					
<b>Comments:</b>					
<b>Member's Requested Change:</b> (Do not use 'Track Changes', or 'Mark-Up'. Use <b>Strikeout</b> and <b>Highlight</b> .) <b>Q. Assembling Steel.</b> 1. Accurately assemble parts as shown in the contract documents. Follow a match-marking system. 2. Handle material so that parts will not be bent, broken, or otherwise damaged. Do not hammer in a manner which will damage or distort the members. 3. Clean bearing surfaces and surfaces to be in permanent contact before the members are assembled. 4. Ensure important connections in trusses, girders, floor systems, and so forth have at least 25% of the holes on each side of the connection filled with drift pins, and another 25% of the holes on each side of the connection filled with temporary fitting up bolts drawn up snugly before the temporary support is removed. If the ultimate connection is to be made with high strength bolts, these bolts may be used as fitting up bolts. At milled connections of compression chords of truss spans, except the hip connection, the number of drift pins may be reduced to no less than 10% of the number of holes. <b>5. Do not weld on any steel during or after assembly unless welding is specified in the contract documents and with prior approval of the Engineer.</b>					
<b>Reason for Revision:</b> Although 'no welding' has been emphasized repeatedly, we continue to have contractors tack welding on structural steel. This addition to the steel structures section of the specifications will hopefully correct this. There continues to be instances of contractors tack welding on structural steel (ie deck forming support hangers). This change, to prohibit welding, will add language to the requirements for field assembly of steel girders.					
<b>County or City Input Needed (X one)</b>		<b>Yes</b>		<b>No</b>	
<b>Comments:</b>					
<b>Industry Input Needed (X one)</b>		<b>Yes</b>		<b>No</b>	
<b>Industry Notified:</b>	<b>Yes</b>	<b>No</b>	<b>Industry Concurrence:</b>	<b>Yes</b>	<b>No</b>
<b>Comments:</b>					



**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Greg Mulder	<b>Office:</b> Construction & Materials	<b>Item 7</b>
<b>Submittal Date:</b> 2013.09.16	<b>Proposed Effective Date:</b> April 2014	
<b>Section No.:</b> 2426 <b>Title:</b> Structural Concrete Repair	<b>Other:</b>	

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

<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/10/13	<b>Effective Date:</b> 4/15/14
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**Specification Committee Approved Text:**

**2426.01, A.**

**Replace the Article:**

Repair spalled or deteriorated structural concrete as specified in the contract documents. This work may include the installation of concrete anchors, reinforcing bars, or wire mesh.

**1. General.**

Repairs shall be placed against sound concrete.

**2. Shallow Repair.**

**a.**—Repair that:

- Is 3/4 inch to 1 1/2 inch (20 mm to 40 mm) in depth, and
- Is placed against sound concrete, and
- Requires a bonding grout, but ~~Does not use forms to support the patching material,~~ except

**b.** Forms may be needed in areas of shallow repair where the patching material cannot support itself. ~~In these areas bonding grout will not be required.~~

**3. Regular Repair.**

**a.**—Repair that:

- Is a minimum depth of 1 1/2 inch (20 40 mm), or 3/4 inch (40 20 mm) behind an unbonded reinforcing bar, and
- Is placed against sound concrete.
- ~~Uses Forms are used, but bonding grout is not required.~~

**2426.02, B.**

**Replace the Article:**

~~Mix proportions are as follows:~~ **Patching Materials.**

**1. Bonding Grout.**

Use equal parts by weight (mass) of Type I cement and sand with enough water to form a slurry with a consistency such that it can be applied with a stiff brush in a thin even coating that will not run or puddle.

**2. Concrete.**

**a 1. Shallow Repair.**

**Table 2426.02-1: Proportions**

Materials	by weight (mass)
Type I Portland cement	4 parts
Concrete sand (Section 4110)	5 parts
Coarse aggregate (Article 4115.05)	5 parts
Add enough water to the mixture to form a consistency that will permit placement and consolidation by hand compaction without slumping.	

Use approved material from Materials I.M. 491.08 in accordance with manufacturer's recommendations.

**b 2.Regular Repair.**

Furnish Class O concrete. Use 3 inches (75 mm) as the target slump, with a variation not to exceed  $\pm 1$  inch (25 mm). For placements requiring higher slump, a mid range water reducer may be used with a target slump of 5 inches (125 mm) or a high range water reducer may be used with a target slump of 7 inches (175 mm).

**Comments:** The Office of Construction and Materials pointed out that a requested revision to the title of Article 2426.02, B was neglected. This title has been revised.

**Specification Section Recommended Text:**

**2426.01, A.**

**Replace the Article:**

Repair spalled or deteriorated structural concrete as specified in the contract documents. This work may include the installation of concrete anchors, reinforcing bars, or wire mesh.

**1. General.**

Repairs shall be placed against sound concrete.

**2. Shallow Repair.**

**a.** Repair that:

- Is 3/4 inch to 1 1/2 inch (20 mm to 40 mm) in depth, and
- Is placed against sound concrete, and
- Requires a bonding grout, but ~~Does not use forms to support the patching material,~~ except

**b.** Forms may be needed in areas of shallow repair where the patching material cannot support itself. ~~In these areas bonding grout will not be required.~~

**3. Regular Repair.**

**a.** Repair that:

- Is a minimum depth of 1 1/2 inch (20 40 mm), or 3/4 inch (40 20 mm) behind an unbonded reinforcing bar, and
- Is placed against sound concrete.
- **b.** Uses Fforms are used, but bonding grout is not required.

**2426.02, B.**

**Replace the Article:**

Mix proportions are as follows:

**1. Bonding Grout.**

Use equal parts by weight (mass) of Type I cement and sand with enough water to form a

slurry with a consistency such that it can be applied with a stiff brush in a thin even coating that will not run or puddle.

**2. Concrete.**

**a 1. Shallow Repair.**

**Table 2426.02-1: Proportions**

Materials	by weight (mass)
Type I Portland cement	4 parts
Concrete sand (Section 4110)	5 parts
Coarse aggregate (Article 4115.05)	5 parts
Add enough water to the mixture to form a consistency that will permit placement and consolidation by hand compaction without slumping.	

Use approved material from Materials I.M. 491.08 in accordance with manufacturer's recommendations.

**b 2. Regular Repair.**

Furnish Class O concrete. Use 3 inches (75 mm) as the target slump, with a variation not to exceed ± 1 inch (25 mm). For placements requiring higher slump, a mid range water reducer may be used with a target slump of 5 inches (125 mm) or a high range water reducer may be used with a target slump of 7 inches (175 mm).

**Comments:**

**Member's Requested Change (Redline/Strikeout):**

**Section 2426. Structural Concrete Repair**

**2426.01 DESCRIPTION.**

A. Repair spalled or deteriorated structural concrete as specified in the contract documents. This work may include the installation of concrete anchors, reinforcing bars, or wire mesh.

**1. Shallow Repair.**

a. Repair that:

- Is 3/4 inch to 1 1/2 inch (20 mm to 40 mm) in depth,
- Is placed against sound concrete, ~~and~~
- ~~Requires a bonding grout, but~~ does not use forms to support the patching material.

b. Forms may be needed in areas of shallow repair where the patching material cannot support itself. ~~In these areas bonding grout will not be required.~~

**2. Regular Repair.**

a. Repair that:

- Is a minimum depth of 1 1/2 inch (20 mm), or 3/4 inch (40 mm) behind an unbonded reinforcing bar, and
- Is placed against sound concrete.

b. Forms are used, ~~but bonding grout is not required.~~

B. The Engineer will outline the areas to be repaired.

**2426.02 MATERIALS.**

A. Use materials meeting the appropriate requirements of [Division 41](#).



**B. Mix proportions are as follows: Patching Materials.**

**1. Bonding Grout.**

Use equal parts by weight (mass) of Type I cement and sand with enough water to form a slurry with a consistency such that it can be applied with a stiff brush in a thin even coating that will not run or puddle.

**2. Concrete.**

**a. Shallow Repair.**

*delete table below*

Table 2426.02-1: Proportions	
Materials	by weight (mass)
Type I Portland cement	4 parts
Concrete sand (Section 4110)	5 parts
Coarse aggregate (Article 4115.05)	5 parts

Add enough water to the mixture to form a consistency that will permit placement and consolidation by hand compaction without slumping.

Use approved material from Materials IM 491.08 in accordance with manufacturers recommendations.

**b. Regular Repair.**

Furnish Class O concrete. Use 3 inches (75 mm) as the target slump, with a variation not to exceed ± 1 inch (25 mm). For placements requiring higher slump, a mid range water reducer may be used with a target slump of 5 inches (125 mm) or a high range water reducer may be used with a target slump of 7 inches (175 mm).

**Reason for Revision:** Contractors typically like to use the bagged products for shallow repairs because these products work better for vertical applications without forms. The current shallow repair material is more difficult to keep in place in vertical applications.

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

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

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Greg Mulder / Kyle Frame		<b>Office:</b> Construction and Materials		<b>Item 8</b>	
<b>Submittal Date:</b> 9/25/2013		<b>Proposed Effective Date:</b> April 2014			
<b>Article No.:</b> 2433.03, D, 1		<b>Other:</b>			
<b>Title:</b> Construction (Concrete Drilled Shaft)					
<b>Specification Committee Action:</b> Approved as recommended.					
<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/10/13		<b>Effective Date:</b> 4/15/14	
<b>Specification Committee Approved Text:</b> See Specification Section Recommended Text.					
<b>Comments:</b> The Office of Construction and Materials indicated that the Engineer could waive this requirement in certain cases, specifically if a permanent casing or deep rock socket are involved.					
<b>Specification Section Recommended Text:</b>					
<b>2433.03, D, 1, General.</b>					
<b>Add the Article:</b>					
f. Do not excavate a shaft within a distance of three shaft diameters of a previously constructed shaft within 24 hours of completing concrete placement, unless approved by the Engineer.					
<b>Comments:</b> Do we need to include "unless approved by the Engineer"? By including that phrase, contractors may falsely believe that we will regularly allow waiving of this requirement. If we do not include the phrase, it is still the Engineer's option to waive this requirement.					
<b>Member's Requested Change:</b> (Do not use 'Track Changes', or 'Mark-Up'. Use <b>Strikeout</b> and <b>Highlight</b> .)					
Add Article 2433.03, D, 1, f:					
f. Excavation of a shaft within a clear distance of three shaft diameters of a previously constructed shaft within 24 hours after completing concrete placement is not allowed unless approved by the Engineer.					
<b>Reason for Revision:</b> Update to current FHWA standards. This requirement allows the concrete to take an initial set prior to excavating another shaft nearby. This reduces the chance of the fresh concrete with high fluid pressure from breaking through to a nearby excavation.					
The proposed requirement may add some downtime for the drilling contractor on some projects.					
<b>County or City Input Needed (X one)</b>			<b>Yes</b>		<b>No</b> X
<b>Comments:</b>					
<b>Industry Input Needed (X one)</b>			<b>Yes</b>		<b>No</b>
<b>Industry Notified:</b>		<b>Yes</b>	<b>No</b>	<b>Industry Concurrence:</b>	
				<b>Yes</b>	<b>No</b>
<b>Comments:</b>					

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Brian Smith / Willy Sorenson		<b>Office:</b> Design / Traffic and Safety	<b>Item 9</b>
<b>Submittal Date:</b> 7/26/2013		<b>Proposed Effective Date:</b> 4/15/2014	
<b>Section No.:</b> 2523 <b>Title:</b> Highway Lighting <b>Section No.:</b> 4185 <b>Title:</b> Highway Lighting Materials		<b>Other:</b>	
<b>Specification Committee Action:</b> This item was deferred until the November Specification Committee Meeting.			
<b>Deferred:</b> X	<b>Not Approved:</b>	<b>Approved Date:</b>	<b>Effective Date:</b>
<b>Specification Committee Approved Text:</b>			
<p><b>Comments:</b> The Office of Traffic and Safety has some comments that need to be addressed. These will be discussed with the Office of Design and the lighting consultant that has been working on these revisions prior to the November meeting.</p> <p>Revisions will be submitted to the AGC prior to the November meeting for review by lighting contractors.</p>			
<b>Specification Section Recommended Text:</b>			
<b>2523.03, B, 1, a, 5.</b>			
<b>Replace the article:</b>			
<del>Iowa DOT Standard Road Plan RM-41, Underdeck Lighting (High Pressure Sodium Luminaire) Underdeck luminaires with lamps.</del>			
<b>2523.03, B, 1, a, 6, I.</b>			
<b>Replace the Article:</b>			
<del>Surge suppressor protection device.</del>			
<b>2523.03, B, 1, a, 7.</b>			
<b>Replace the Article:</b>			
<del>Iowa DOT Standard Road Plan RM-40, Cable Splices and Connectors.</del>			
<b>2523.03, B, 1, a, Required Shop Drawings.</b>			
<b>Renumber Article 9 as Article 10.</b>			
<b>Add the Article:</b>			
<b>9.</b> Anchor bolts, nuts, and washers.			
<b>2523.03, B, 1, b, Shop Drawings not Required.</b>			
<b>Delete Article 4:</b>			
<del>4. Anchor bolts, nuts, and washers.</del>			
<b>Replace Article 7:</b>			
<del>Iowa DOT Standard Road Plan RM-42, Type 1 Handholes and junction boxes.</del>			

**2523.03, C, 1.**

**Replace** the first sentence:

The ~~Utility Company is to~~ shall provide secondary service to the project in the vicinity indicated.

**2523.03, C, 3.**

**Replace** the first sentence:

Furnish all apparatus and material for the pole mounted control ~~station cabinet~~, as shown in the contract documents.

**2523.03, C, 4.**

**Replace** the first sentence:

If pad mounted transformers and control ~~stations cabinets~~ are specified, ~~ensure they are~~ furnished and installed as specified in the contract documents.

**2523.03, D, 1.**

**Replace** the Article:

Drill the holes for pole ~~footings foundations~~ and direct embedded poles.

**2523.03, G, Footings.**

**Replace** the title and Article:

**Footings Foundations.**

1. Construct cast-in-place concrete ~~footings foundations~~ for all lighting units not located on structures or barriers. Form and pour the top portion of all ~~footings foundations~~ in form work to at least 6 inches (150 mm) below the finished ground level. Ensure the ~~footings foundations~~ conform in all respects to the details, including reinforcement and alignment to provide the correct overhang, as indicated in the contract documents.
2. Ensure finished surfaces are smooth and free from stains and foreign material.
3. Construct an alternate ~~footing foundation~~, as directed by the Engineer, when shale, sandstone, broken and shattered rock, solid rock, or other similar materials are encountered.
4. Place anchor bolts to provide for placement of nuts and washers on the top and bottom of the transformer base or pole flange, leaving ample room for adjustment and plumbing the pole. When slip bases are used, position anchor bolts so that they do not interfere with the operation of the slip base. Place anchor bolts according to Article 2405.03, H, 3.

**2523.03, I, Aluminum Transformer Bases.**

**Replace** the Article:

~~Ensure the bottom flange of aluminum transformer bases are painted on the inside and outside surfaces with two coats of zinc-rich paint.~~ Install transformer base according to the manufacturer's recommendation and the contract documents.

**2523.03, J, 3.**

**Replace** the first sentence:

~~Make~~ Install single mastarm poles so the side of the shaft opposite the mastarm is plumb.

**2523.03, J, 8.**

**Replace the article:**

After the erection has been inspected and approved, fill the space between the mounting flange and the concrete ~~footing~~ foundation with an approved non-shrink grout and finish as detailed.

**2523.03, L, 1.**

**Replace the second sentence:**

Construct circuits and control ~~stations~~ cabinets according to the contract documents.

**2523.03, N, 2, b, Crossing Ducts.**

**Replace the article:**

- 1) Unless shown otherwise in the contract documents, use Schedule 80 PVC conduit for crossing ducts.
- 2) If crossings are to be placed without disturbing the existing surface, install by jacking or boring methods approved by the Engineer. Do not use jetting. ~~No access to duct or jacking of duct from median will be allowed without Engineer's approval.~~
- 3) After cable is installed, seal duct terminal ends in handholes, transformer bases, pole foundations, or similar locations (as directed by the Engineer) against moisture. Use either approved sealing bushings or a non-hardening sealing compound.

**2523.03, N, 2, c, Primary Service Ducts.**

**Replace the title and article:**

**Primary Other Service Ducts.**

Apply installation requirements for lighting circuit ducts and crossing circuit ducts to other service ducts including, but not limited to, ducts required for a complete installation that are not covered under the Utility Company service agreement.

**2523.03, P, Junction Boxes.**

**Replace the article:**

1. Furnish junction boxes of the type specified and install as indicated in the contract documents.
2. In locations subject to pedestrian traffic, install junction box covers with approved anti-skid pattern.
3. Where applicable, install fiber reinforced concrete junction box above a granular material complying with Gradation No. 3 or 5 of the Aggregate Gradation Table, Section 4109.

**2523.03, R, Connectors.**

**Delete the second and third sentences:**

~~Ensure connector assemblies are supplied with a disposable mounting pin, when required, and sufficient silicone compound to lubricate the metal parts and rubber housings. Ensure complete instructions are supplied with each connector.~~

**2523.03, T, Control Station.**

**Replace the title and article:**

### **Control Station Cabinet.**

Furnish the components specified and construct and install the control station cabinets as indicated in the contract documents. Furnish and install meter sockets and meter loops unless an agreement for unmetered service has been secured at the time of construction. A meter loop is defined as the conduit, cable, enclosures, meter socket (if required), and other necessary components needed to form a complete system ready for connection as defined in the Utility Company service agreement.

#### **1. General.**

Meet the following requirements:

- a. Load circuits within the control panel connected phase-to-phase, with neutral connections to grounds only.
- b. Internal wiring for line and control circuits meet the requirements for single conductor cable. Thermoplastic cable may be used with Engineer's approval.
- c. Line circuit conductor sizes comply with NEC requirements based on the total load current ratings of the branch circuit breakers supplied by the respective circuit segments, with a minimum size of No. 8 AWG. Minimum size for control circuit conductors is No. 12 AWG.
- d. Minimum interrupting ratings for branch circuit breakers identical to line circuit breakers. Provide one branch breaker for each active circuit and specified spare.
- e. Unless shown otherwise, load current ratings of:
  - 30 amperes for branch circuit breakers.
  - 100 amperes for main circuit breakers.
- f. Interrupting ratings for contactor not less than load current rating for line circuit breaker.
- g. Minimum working voltage rating of 240 volts for control fuse. Use cartridge type fuse with dimensions 13/32 inch (10 mm) by 1 1/2 inch (38 mm). Current ratings as recommended by manufacturer.
- h. Double-break contact block test switch.
- i. Control cabinet electrically bonded to ground rod(s) with a copper wire or jumper equivalent to No. 6 AWG or larger.

#### **2. Pole Mounted.**

- a. Utility Company shall furnish electrical service drop and required meters according to their service agreement.
- b. Provide control cabinets with components arranged to provide access for maintenance and space for four branch circuit breakers without disturbing other components or wiring.
- c. Mount photoelectric control on control cabinet and aim according to manufacturer's instructions.
- d. Provide risers consisting of rigid conduit of the type shown on the plans. Use conduit with a nominal diameter of 2 inches (53 mm) or larger for top risers. Provide one 2 inch (53 mm) nominal diameter bottom riser for each active circuit and specified spare unless shown otherwise on the plans. Use weatherproof threaded hubs or compression glands for riser connections into cabinet.

#### **3. Pad Mounted.**

- a. The Utility Company shall furnish electrical service cable, pad mounted transformer, and required meters according to their service agreement.
- b. Apply all requirements for a pad mounted control cabinet with contactor. Provide cabinets with continuously welded seams and minimum interior dimensions of 2 feet 6 inches high by 3 feet wide by 2 feet deep (760 mm high by 600 mm wide by 200 mm wide).
- c. Photoelectric control may be mounted on or in control cabinet if cabinet is equipped with photocell window. If plans call for remotely mounted photocell, connect



photoelectric control socket to nearest accessible grounding connection, or where indicated on detail plans, by means of a No. 12 AWG bare copper wire.

- d. Use weatherproof threaded hubs or compression glands for duct connections into cabinet.
- e. Slope top surface of concrete pad 1/4 inch per foot (20 mm per meter) in the direction of natural ground. Place concrete pads as directed by the Engineer.

**2523.03, U, 4.**

**Replace** the first sentence:

Measure ground resistance with ground rod, or system of ground rods as described in Article 2523.03, ~~K M~~, 2 disconnected from the circuit neutral wire.

**2523.04, E, Under Deck Lighting.**

**Replace** the title.

**Under-Deck.**

**2523.05, A, 2.**

**Replace** the article:

Payment is full compensation for materials, equipment, excavation, and installation of pole, luminaire, mastarm, ~~footing~~ foundation, base, ground rod, wiring within pole, and connectors within pole, according to the contract documents.

**2523.05, D, 2.**

**Replace** the article:

Payment is full compensation for materials, equipment, excavation, meter socket, meter loop, control cabinet pole, and installation of control cabinet and ~~line and~~ internal circuitry ~~wiring~~.

**2523.05, E, Under Deck Lighting.**

**Replace** the title and Article.

**Under-Deck Lighting.**

1. Each.
2. Under-Deck Lighting luminaires shall be complete including lamps, ballast, and mounting device.

**4185.02, A, 3.**

**Replace** the third sentence:

Ensure structural design of light pole is based on AASHTO Standards and Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, current edition.

**4185.02, A, 4.**

**Replace** the first sentence:

The assembled lighting unit, consisting of pole and attachments including mastarms, luminaires, and breakaway base or slip base, as specified, complete and in place in the ~~footing~~ foundation anchor bolts, is required to withstand windloading equal to a wind of 80 mph (130 km/h) as specified in AASHTO Standards and Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, current edition, without fracture or apparent

deformation of components.

**4185.02, B, 6.**

**Replace** the first bulleted item and add the second bulleted item:

- Meet the requirements of ASTM A 563, ~~DH~~
- Are grade DH,

**4185.02, D, Breakaway (Transformer) Base.**

**Replace** the article:

Furnish bases meeting the following requirements:

- ~~1. Cast aluminum meeting requirements of ASTM B 108, 356-T6 or B 26, 356-T6 aluminum alloy. Two piece weldments with internally welded inside corners/material 356 T6 complying with ASTM B 108-87 aluminum alloy permanent mold castings.~~
- ~~2. Compliance with AASHTO breakaway criteria. Designed according to AASHTO Standards and Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, current edition.~~
- ~~3. Meet or exceed NCHRP Report 350, or AASHTO MASH criteria for any assembly system evaluated after January 1, 2011.~~
- ~~4. FHWA approved.~~
- ~~3 5. Capable of withstanding an applied moment at the top equal to the design moment of the applicable pole, and no less than 35,000 foot-pounds (47,500 N•m). Capable of supporting the pole mounting height and mastarm length shown in the contract documents.~~
- ~~4. Yields to an applied momentum of 1,100 pound-seconds (4.9 kNs) when tested with an automobile or 400 pound-seconds (1.8 kN•s) when tested with a solid mass. The manufacturer should conduct the tests and certify the results to comply with requirements of current AASHTO requirements for breakaway luminaire supports.~~
- ~~5 6. Equipped with a weatherproof manufacturer furnished, other than aluminum (i.e. having no scrap value), access door with door opening area of no less than 100 square inches (0.065 m<sup>2</sup>), unless shown otherwise.~~

**4185.02, E, Steel Poles.**

**Replace** the title:

**Steel Poles and Mastarms.**

**4185.02, F, Aluminum Poles.**

**Replace** the title:

**Aluminum Poles and Mastarms.**

**4185.02, G, 1, a.**

**Replace** the article:

ANSI ~~05.4~~ (ATIS) O5.1, Group D.

**4185.03, A, 6.**

**Replace** the second sentence and Table 4185.03-1:

Unless specified otherwise, furnish only light sources for roadway luminaires listed in Table 4185.03-1:

Table 4185.03-1: High Pressure Sodium Lamp

Wattage	ANSI C78.42-2009 Designation	Bulb
400 Watt	<del>ANSI Code S51WA-400</del> S51/O-EJ	E18
250 Watt	<del>ANSI Code S50VA-250</del> S50/O-EJ	E18
200 Watt	<del>ANSI Code S66MN-200</del> S66/O-EJ	E18
150 Watt	<del>ANSI Code S55SC-150</del> S55/O-NV	E23.5
100 Watt	<del>ANSI Code S54SB-100</del> S54/O-NV	E23.5
70 Watt	<del>ANSI Code S62ME-70</del> S62/O-NV	E23.5

Furnish high pressure sodium lamps for appropriate burning positions, as required by luminaire.

**4185.03, B, 7.**

**Replace** Table 4185.03-2:

Table 4185.03-2: High Pressure Sodium Lamp  
(Low Mounting Height Luminaires)

Wattage	ANSI C78.42-2009 Designation	Bulb
250 Watt	<del>ANSI Code S50VA-250</del> S50/O-EJ	E18
150 Watt	<del>ANSI Code S55SC-150</del> S55/O-NV	E23.5
100 Watt	<del>ANSI Code S54SB-100</del> S54/O-NV	E23.5
70 Watt	<del>ANSI Code S62ME-70</del> S62/O-NV	E23.5

Furnish high pressure sodium lamps for appropriate burning positions, as required by luminaire.

**4185.04, B.**

**Replace the article:**

Unless designated otherwise, furnish rods of a minimum nominal 5/8 inch (16 mm) diameter, and a minimum length of 12 feet (3.6 m) for control ~~stations~~ cabinets and 8 feet (2.4 m) for installations at lighting units.

**4185.07, A, 10.**

**Replace the article:**

Unless detailed otherwise in the contract documents, space provided for no less than one line (main) circuit breaker and four branch circuit breakers, one contactor, two surge ~~suppressors~~ protection devices, and a test switch.

**4185.07, C, 3.**

**Replace the article:**

Two surge ~~suppressors~~ protection devices.

**4185.09, A, 1.**

**Replace the article:**

~~Constructed~~ Manufactured to ~~the dimensions~~ a nominal 17 inches wide by 30 inches long by minimum 24 inches deep (430 mm wide by 760 mm long by 600 mm deep) or as shown in the contract documents.

**4185.09, B, 1, d.**

**Replace the article:**

Apply applicable provisions of Article ~~370~~ 314 of the **current** NEC.

**4185.10, B, 1.**

**Replace the article:**

Compliance with ~~ANSI~~ NEMA C80.1.

**4185.10, C, Rigid Aluminum Conduit.**

**Replace the article:**

Furnish conduit meeting the requirements of ~~ANSI~~ NEMA C80.5.

**4185.10, D, 4.**

**Replace the first sentence:**

Compliance with applicable requirements of NEMA TC-3 and UL 514~~B~~ and the manufacturer's recommendation for all materials and methods for attaching and making fittings.

**4185.11, Connector Assemblies.**

**Replace the first paragraph:**

~~Details of connector assemblies will be shown in the contract documents.~~ Furnish connectors with complete instructions, assembly devices, a disposable mounting pin (when required), and silicone lubricant for all mating surfaces. Ensure connector assemblies are: 1) waterproof; 2) designed for both direct burial in the earth and exposure to sunlight; and 3) are capable of repeated disconnections without damage to the watertight seals and terminals or reduction of conductivity below specifications. Furnish connectors recommended for the required cable sizes. Meet the following requirements for the type specified:

#### 4185.12, A, Single Conductor Wire and Cable.

**Replace the article:**

Furnish wire and cable meeting the following requirements:

**1. Insulation.**

- Rated for 600 volts.
- Thermosetting, cross linked polyethylene meeting the requirements of ~~ICEA S-66-524 (NEMA WC-7)~~ ICEA S-95-658 (ANSI/NEMA WC 70).
- Thickness meeting the requirements of Table No. ~~3-1 Column "A"~~ 3-3.
- ~~Unless specified otherwise in the contract documents, comply with applicable requirements of UL Standard No. 44.~~
- UL listed for use at conductor temperatures of 167°F (75°C) or higher in wet or dry locations.

**2. Wire and Cable.**

- Bear required UL labeling repeated throughout their length.
- UL Listed Type USE-2 per UL Standard 854 and Type RHH or RHW-2 per UL Standard 44.

**3 2. Conductors.**

- Annealed copper meeting the requirements of ASTM B 3.
- Sizes smaller than No. 8 AWG, may be solid or stranded.
- Sizes No. 8 AWG and larger are to be stranded and are to meet the requirements of ASTM B 8, Class B.

#### 4185.12, D, 2.

**Replace the article:**

Ensure the cable complies with requirements for ~~Type~~ Class B Control Cable as described in ~~ICEA S-61-402 (NEMA WC-5)~~ ANSI/ICEA S-73-532 (NEMA WC 57).

#### 4185.12, E, Flexible Cord.

**Replace the article:**

Use cord that is UL listed for Type SO and complies with applicable requirements of UL Standard No. 62 ~~(Table 3.14)~~.

#### 4185.13, Surge Suppressor.

**Replace the title and article:**

**Surge ~~Suppressor~~ Protection Device**

Furnish ~~suppressors~~ SPDs meeting the following requirements:

- A. Metal oxide varistor (MOV) type suppressor, suitable for 120/240 volt single-phase line voltage, with an ANSI/UL1449 ~~Category B3 voltage rating of 500 volts (line-neutral)~~ 3rd edition Type 1 with 20kA I-Nominal and voltage protection rating of 700 volts (line-neutral).
- B. Single-pulse (8/20 microsecond) maximum surge current rating of 50,000 amperes per mode.
- C. NEMA 1 ~~enclosure included~~ rating that is suitable for mounting inside a lighting control

cabinet.

- D. Each ~~line~~ MOV fused and a visual LED indication light installed to show power and suppression status.

**Comments:**

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

**2523.03, B, 1, a, 5, Required Shop Drawings.**

**Replace** the article:

~~Iowa DOT Standard Road Plan RM-41, Underdeck Lighting (High Pressure Sodium Luminaire)~~  
Underdeck luminaires with lamps.

**2523.03, B, 1, a, 6, I, Required Shop Drawings.**

**Replace** the article:

Surge ~~suppressor~~ protection device.

**2523.03, B, 1, a, 7, Required Shop Drawings.**

**Replace** the article:

~~Iowa DOT Standard Road Plan RM-40,~~ Cable Splices and Connectors.

**2523.03, B, 1, a, Required Shop Drawings.**

**Renumber** existing Article 9 as Article 10.

**Add** as Article 9:

**9.** Anchor bolts, nuts, and washers.

**2523.03, B, 1, b, Shop Drawings not Required.**

**Delete** Article 4:

~~Anchor bolts, nuts, and washers.~~

**Renumber** existing Articles 5 through 12 as 4 through 11.

**Replace** existing Article 7:

~~Iowa DOT Standard Road Plan RM-42, Type 1 Handholes~~ and junction boxes.

**2523.03, C, 1, Cooperation with Utility Companies.**

**Replace** the first sentence:

The ~~Utility Company~~ ~~is to~~ shall provide secondary service to the project in the vicinity indicated.

**2523.03, C, 3, Cooperation with Utility Companies.**

**Replace** the first sentence:

Furnish all apparatus and material for the pole mounted control ~~station~~ cabinet, as shown in the contract documents.

**2523.03, C, 4, Cooperation with Utility Companies.**

**Replace** the first sentence:

If pad mounted transformers and control ~~stations~~ cabinets are specified, ~~ensure they are~~ furnished and installed as specified in the contract documents.

**2523.03, D, 1, Excavation.**

**Replace** the article:

Drill the holes for pole ~~footings~~ foundations and direct embedded poles.

**2523.03, G, Footings.**

**Replace** "footing" with "foundation" in the title and article.

**2523.03, I, Aluminum Transformer Bases.**

**Replace** the article:

~~Ensure the bottom flange of aluminum transformer bases are painted on the inside and outside surfaces with two coats of zinc-rich paint.~~ Install transformer base according to the manufacturer's recommendation and the contracts documents.

**2523.03, J, 3, Poles and Mastarms.**

**Replace** the first sentence:

~~Make~~ Install single mastarm poles so the side of the shaft opposite the mastarm is plumb.

**2523.03, J, 8, Poles and Mastarms.**

**Replace** the article:

After the erection has been inspected and approved, fill the space between the mounting flange and the concrete ~~footing~~ foundation with an approved non-shrink grout and finish as detailed.

**2523.03, L, 1, Circuits.**

**Replace** the second sentence:

Construct circuits and control ~~stations~~ cabinets according to the contract documents.

**2523.03, N, 2, b, Crossing Ducts.**

**Replace** the article:

- 1) Unless shown otherwise in the contract documents, use Schedule 80 PVC conduit for crossing ducts.
- 2) If crossings are to be placed without disturbing the existing surface, install by jacking or boring methods approved by the Engineer. Do not use jetting. ~~No access to duct or jacking of duct from median will be allowed without the Engineer's approval.~~
- 3) After cable is installed, seal all duct terminal ends in handholes, transformer bases, pole foundations, or similar locations (as directed by the Engineer) against moisture. Use either approved sealing bushings or a non-hardening sealing compound.

**2523.03, N, 2, c, Primary Service Ducts.**

**Replace** the title and article:

~~Primary~~ **Other Service Ducts.**

Apply installation requirements for lighting circuit ~~ducts~~ and crossing circuit ~~ducts to other~~



service ducts including, but not limited to, ducts required for a complete installation that are not covered under the Utility Company service agreement.

### **2523.03, P, Junction Boxes.**

**Replace** the article:

- 1.** Furnish junction boxes of the type specified and install as indicated in the contract documents.
- 2.** In locations subject to pedestrian traffic, install junction box covers with approved anti-skid pattern.
- 3.** Where applicable, install fiber reinforced concrete junction box above a granular material complying with Gradation No. 3 or 5 in the Aggregate Gradation Table of Section 4109.

### **2523.03, R, Connectors.**

**Delete** the second and third sentences:

~~Ensure connector assemblies are supplied with a disposable mounting pin, when required, and sufficient silicone compound to lubricate the metal parts and rubber housings. Ensure complete instructions are supplied with each connector.~~

### **2523.03, T, Control Station.**

**Replace** the title and article:

#### **Control Station Cabinet.**

Furnish the components specified and construct and install the control station cabinets as indicated in the contract documents. Furnish and install meter sockets and meter loops unless an agreement for unmetered service has been secured at the time of construction. A meter loop is defined as the conduit, cable, enclosures, meter socket (if required), and any other necessary components needed to form a complete system ready for connection as defined in the Utility Company service agreement.

#### **1. General.**

Meet the following requirements:

- a.** All load circuits within the control panel connected phase-to-phase, with neutral connections to grounds only.
- b.** All internal wiring for line and control circuits meet the requirements for single conductor cable. Thermoplastic cable may be used with the Engineer's approval.
- c.** Line circuit conductor sizes comply with NEC requirements based on the total load current ratings of the branch circuit breakers supplied by the respective circuit segments, with a minimum size of No. 8 AWG. Minimum size for control circuit conductors is No. 12 AWG.
- d.** Minimum interrupting ratings for branch circuit breakers identical to line circuit breakers. Provide one branch breaker for each active circuit and specified spare.
- e.** Unless shown otherwise, load current ratings of
  - 30 amperes for branch circuit breakers.
  - 100 amperes for main circuit breakers.
- f.** Interrupting ratings for the contactor not less than the load current rating for the line circuit breaker.
- g.** Minimum working voltage rating of 240 volts for the control fuse. Use cartridge type

fuse with dimensions 13/32 inch (10 mm) by 1 1/2 inch (38 mm). Current ratings as recommended by the manufacturer.

- h.** Double-break contact block test switch.
- i.** The control cabinet electrically bonded to the ground rod(s) with a copper wire or jumper equivalent to No. 6 AWG or larger.

**2. Pole Mounted.**

- a.** The Utility Company shall furnish electrical service drop and required meters according to their service agreement.
- b.** Provide control cabinets with all components within arranged to provide access for maintenance and space for four branch circuit breakers without disturbing other components or wiring.
- c.** Mount photoelectric control on control cabinet and aim according to manufacturer's instructions.
- d.** Provide risers consisting of rigid conduit of the type shown on the plans. Use conduit with a nominal outside diameter of 2 inches (53 mm) or larger for top risers. Provide one 2 inch (53 mm) nominal outside diameter bottom riser for each active circuit and specified spare unless shown otherwise on the plans. Use weatherproof threaded hubs or compression glands for all riser connections into the cabinet.

**3. Pad Mounted.**

- a.** The Utility Company shall furnish electrical service cable, pad mounted transformer, and required meters according to their service agreement.
- b.** Apply all requirements for a pad mounted control cabinet with contactor. Provide cabinets with continuously welded seams and minimum interior dimensions of 2 feet 6 inches high by 3 feet wide by 2 feet deep (760 mm high by 600 mm wide by 200 mm wide).
- c.** Photoelectric control may be mounted on or in control cabinet if cabinet is equipped with photocell window. If plans call for a remotely mounted photocell, connect the photoelectric control socket to the nearest accessible grounding connection, or where indicated on the detail plans, by means of a No. 12 AWG bare copper wire.
- d.** Use weatherproof threaded hubs or compression glands for all duct connections into the cabinet.
- e.** Slope the top surface of the concrete pad 1/4 inch per foot (20 mm per meter) in the direction of the natural ground. Place concrete pads as directed by the Engineer.

**2523.03, U, 4, Final Acceptance.**

**Replace** the first sentence:

Measure ground resistance with the ground rod, or system of ground rods as described in Article 2523.03, ~~KM, 2~~ disconnected from the circuit neutral wire.

**2523.04, E, Under Deck Lighting.**

**Replace** "Under Deck" with "Underdeck" in the title and article.

**2523.05, A, 2, Lighting Poles.**

**Replace** the article:

Payment is full compensation for materials, equipment, excavation, and installation of the pole, luminaire, mastarm, ~~footing~~ foundation, base, ground rod, wiring within the pole, and connectors within the pole, according to the contract documents.

**2523.05, D, 2, Control Cabinet.**

**Replace the article:**

Payment is full compensation for materials, equipment, excavation, meter socket, meter loop, control cabinet pole, and installation of control cabinet and all ~~line and internal circuitry wiring~~.

**2523.05, E, Under Deck Lighting.**

**Replace** "Under Deck" with "Underdeck" in the title and article.

**4185.02, A, 3, General.**

**Replace the Third sentence:**

Ensure the structural design of the light pole is based on the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, ~~current edition~~.

**4185.02, A, 4, General.**

**Replace the first sentence:**

The assembled lighting unit, consisting of the pole and all attachments including mastarms, luminaires, and breakaway base or slip base, as specified, complete and in place in the ~~footing~~ foundation anchor bolts, is required to withstand windloading ~~equal to a wind of 80 mph (130 km/h)~~ as specified in AASHTO Standards and Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, ~~current edition~~, without fracture or apparent deformation of components.

**4185.02, B, 6, Anchor Bolt and Slip-Base Plate Fasteners for Lighting Poles.**

**Replace the first bulleted item and add as the second bulleted item:**

- Meet the requirements of ASTM A 563, ~~DH~~
- Are grade ~~DH~~,

**4185.02, D, Breakaway (Transformer) Base.**

**Replace the article:**

Furnish bases meeting the following requirements:

1. ~~Two piece weldments with internally welded inside corners/material 356 T6 complying with ASTM B108-87 aluminum alloy permanent mold castings~~ Cast aluminum meeting requirements of ASTM B 108, 356-T6 or B-26, 356-T6 aluminum alloy.
2. Designed according to the AASHTO Standards and Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, ~~current edition~~ ~~Compliance with AASHTO breakaway criteria.~~
3. Meet or exceed NCHRP Report 350, or AASHTO MASH criteria for any assembly system evaluated after January 1, 2011.
4. FHWA approved.
35. Capable of supporting the pole mounting height and mastarm length shown in the contract documents ~~Capable of withstanding an applied moment at the top equal to the design moment of the applicable pole, and no less than 35,000 foot-pounds (47,500 N•m).~~

~~4. Yields to an applied momentum of 1,100 pound seconds (4.9 kNs) when tested with an automobile or 400 pound seconds (1.8 kN\*s) when tested with a solid mass. The manufacturer should conduct the tests and certify the results to comply with requirements of current AASHTO requirements for breakaway luminaire supports.~~

~~56. Equipped with a weatherproof manufacturer furnished, other than aluminum (i.e. having no scrap value), access door with door opening area of no less than 100 square inches (0.065 m<sup>2</sup>), unless shown otherwise.~~

**4185.02, E, Steel Poles.**

**Replace the title:**

**Steel Poles and Mastarms.**

**4185.02, F, Aluminum Poles.**

**Replace the title:**

**Aluminum Poles and Mastarms.**

**4185.02, G, 1, a, Wood Poles.**

**Replace the article:**

~~ANSI 05.1 ANSI (ATIS) O5.1, Group D.~~

**4185.03, A, 6, Roadway Luminaire.**

**Replace the second sentence and Table 4185.03-1:**

Unless specified otherwise, furnish only the light sources for roadway luminaires listed in Table 4185.03-1:

Table 4185.03-1: High Pressure Sodium Lamp	
400 Watt	ANSI Code S51WA-400
250 Watt	ANSI Code S50VA-250
200 Watt	ANSI Code S66MN-200
150 Watt	ANSI Code S55SC-150
100 Watt	ANSI Code S54SB-100
70 Watt	ANSI Code S62ME-70
Furnish high pressure sodium lamps for appropriate burning positions, as required by the luminaire.	

Table 4185.03-1: High Pressure Sodium Lamp		
Wattage	ANSI C78.42-2009 Designation	Bulb
400 Watt	S51/O-EJ	E18
250 Watt	S50/O-EJ	E18

200 Watt	S66/O-EJ	E18
150 Watt	S55/O-NV	E23.5
100 Watt	S54/O-NV	E23.5
70 Watt	S62/O-NV	E23.5
Furnish high pressure sodium lamps for appropriate burning positions, as required by the luminaire.		

**4185.03, B, 7, Low Mounting Height Luminaires.**

**Replace** Table 4185.03-2:

Table 4185.03-2: High Pressure Sodium Lamp	
250 Watt	ANSI Code S50VA-250
150 Watt	ANSI Code S55SC-150
100 Watt	ANSI Code S54SB-100
70 Watt	ANSI Code S62ME-70
Furnish high pressure sodium lamps for appropriate burning positions, as required by the luminaire.	

Table 4185.03-2: High Pressure Sodium Lamp (Low Mounting Height Luminaires)		
Wattage	ANSI C78.42-2009 Designation	Bulb
250 Watt	S50/O-EJ	E18
150 Watt	S55/O-NV	E23.5
100 Watt	S54/O-NV	E23.5
70 Watt	S62/O-NV	E23.5
Furnish high pressure sodium lamps for appropriate burning positions, as required by the luminaire.		

**4185.04, B, Ground Rods.**

**Replace** the article:

Unless designated otherwise, furnish rods of a minimum nominal 5/8 inch (16 mm) diameter, and a minimum length of 12 feet (3.6 m) for control stations cabinets and 8 feet (2.4 m) for installations at lighting units.

**4185.07, A, 10, Control Cabinets.**

**Replace** the article:

Unless detailed otherwise in the contract documents, space provided for no less than one line (main) circuit breaker and four branch circuit breakers, one contactor, two surge suppressors protection devices, and a test switch.

**4185.07, C, 3, Control Cabinets.**

**Replace the article:**

Two surge ~~suppressors~~ protection devices.

**4185.09, A, 1, Preformed Junction Boxes.**

**Replace the article:**

~~Constructed~~Manufactured to the dimensions a nominal 17 inches wide by 30 inches long by minimum 24 inches deep (430 mm wide by 760 mm long by 600 mm deep) or as shown in the contract documents.

**4185.09, B, 1, d, Cast Iron Junction Boxes.**

**Replace the article:**

Apply applicable provisions of Article ~~370314~~ of the current NEC.

**4185.10, B, 1, Rigid Steel Conduit.**

**Replace the article:**

Compliance with ~~ANSI~~NEMA C80.1.

**4185.10, C, Rigid Aluminum Conduit.**

**Replace the article:**

Furnish conduit meeting the requirements of ~~ANSI~~NEMA C80.5.

**4185.10, D, 4, Plastic Conduit and Fittings.**

**Replace the first sentence:**

Compliance with applicable requirements of NEMA TC-3 and UL 514~~B~~ and the manufacturer's recommendation for all materials and methods for attaching and making fittings.

**4185.11, Connector Assemblies.**

**Delete** the first sentence of the first paragraph. **Replace** the existing second sentence of the first paragraph and add as new sentences:

~~Details of connector assemblies will be shown in the contract documents.~~ Furnish connectors with complete instructions, assembly devices, a disposable mounting pin (when required), and silicone lubricant for all mating surfaces. Ensure connector assemblies are: 1) waterproof; 2) designed for both direct burial in the earth and exposure to sunlight; and 3) are capable of repeated disconnections without damage to the watertight seals and terminals or reduction of conductivity below specifications. Furnish connectors recommended for the required cable sizes.

**4185.12, A, 1, Single Conductor Wire and Cable.**

**Replace the article:**

Furnish wire and cable meeting the following requirements:

**1. Insulation.**

- Rated for 600 volts.
- Thermosetting, cross linked polyethylene meeting the requirements of ~~ICEA S-66-524~~ (NEMA WC-7) ICEA S-95-658 (ANSI/NEMA WC 70).

- Thickness meeting the requirements of Table No. 3-31 Column "A".
- ~~Unless specified otherwise in the contract documents, comply with applicable requirements of UL Standard No. 44.~~
- UL listed for use at conductor temperatures of 167°F (75°C) or higher in wet or dry locations.
- Bears required UL labeling repeated throughout their length.
- UL Listed Type USE-2 per UL Standard 854 and Type RHH or RHW-2 per UL Standard 44.

**2. Wire and Cable.**

- ~~Bear required UL labeling repeated throughout their length.~~
- ~~UL Listed Type USE-2 per UL Standard 854 and Type RHH or RHW-2 per UL Standard 44.~~

**32. Conductors.**

- Annealed copper meeting the requirements of ASTM B 3.
- Sizes smaller than No. 8 AWG, may be solid or stranded.
- Sizes No. 8 AWG and larger are to be stranded and are to meet the requirements of ASTM B 8, Class B.

**4185.12, D, 2, Control Cable.**

**Replace the article:**

Ensure the cable complies with requirements for ~~Type~~ Class B Control Cable as described in ~~ICEA S-61-402 (NEMA WC-5) ANSI/ICEA S-73-532 (NEMA WC 57).~~

**4185.12, E, Flexible Cord.**

**Replace the article:**

Use cord that is UL listed for Type SO and complies with applicable requirements of UL Standard No. 62 ~~(Table 3.14).~~

**4185.13, Surge Suppressor.**

**Replace the title and article:**

**Surge ~~Suppressor~~ Protection Device (SPD)**

Furnish ~~suppressors~~ SPDs meeting the following requirements:

- A. Metal oxide varistor (MOV) type suppressor, suitable for 120/240 volt single-phase line voltage, with an ANSI/UL1449 ~~Category B3 voltage rating of 500 volts (line-neutral) 3rd~~ edition Type 1 with 20kA I-Nominal and voltage protection rating (VPR) of 700 volts (line-neutral).
- B. Single-pulse (8/20 microsecond) maximum surge current rating of 50,000 amperes ~~per~~ mode.
- C. NEMA 1 ~~enclosure included~~ rating that is suitable for mounting inside a lighting control cabinet.
- D. Each ~~line~~ MOV fused and a visual LED indication light installed to show power and suppression status.



<b>Reason for Revision:</b> Sections were reviewed by lighting consultant to bring sections up to date with current practice.					
<b>County or City Input Needed (X one)</b>			<b>Yes</b>	<b>No X</b>	
<b>Comments:</b>					
<b>Industry Input Needed (X one)</b>			<b>Yes X</b>	<b>No</b>	
<b>Industry Notified:</b>	<b>Yes X</b>	<b>No</b>	<b>Industry Concurrence:</b>	<b>Yes</b>	<b>No</b>
<b>Comments:</b> Industry had comments related to updating code references and changes related to introduction of new equipment since this section was last revised.					

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Brian Smith		<b>Office:</b> Design		<b>Item 10</b>	
<b>Submittal Date:</b> 9/27/2013		<b>Proposed Effective Date:</b> 4/15/2014			
<b>Article No.:</b> 2527.03, F, 2, b		<b>Other:</b>			
<b>Title:</b> Two Lane Roads					
<b>Specification Committee Action:</b> Approved as recommended.					
<b>Deferred:</b>	<b>Not Approved:</b>	<b>Approved Date:</b> 10/10/13		<b>Effective Date:</b> 4/15/14	
<b>Specification Committee Approved Text:</b> See Specification Section Recommended Text.					
<b>Comments:</b> None.					
<b>Specification Section Recommended Text:</b>					
<b>2527.03, F, 2, b, Two Lane Roads.</b>					
Replace the article:					
1) <del>Paved Shoulder More Than 2 Feet (0.6 m).</del>					
a) <del>Center lines obliterated for 50 feet (15 m) or more.</del>					
b) <del>Edge lines obliterated for 50 feet (15 m) or more.</del>					
c) <del>No Passing Zone lines obliterated.</del>					
2) <del>Paved Shoulder 2 Feet (0.6 m) or Less.</del>					
a) <del>Center lines obliterated for 50 feet (15 m) or more.</del>					
b) <del>Edge lines obliterated on curves with a radius of 1,000 feet (300 m) or less.</del>					
c) <del>Edge lines obliterated at bridge approaches, or other obstructions within 3 feet (1 m) of the roadway, for 300 feet (90 m) or more.</del>					
d 3) No Passing Zone lines obliterated.					
<b>Comments:</b>					
<b>Member's Requested Change: (Do not use 'Track Changes', or 'Mark-Up'. Use <b>Strikeout</b> and <b>Highlight</b>.)</b>					
<b>2527.03, F, 2, b, Two Lane Roads.</b>					
Replace the article:					
1) <del>Paved Shoulder More Than 2 Feet (0.6 m).</del>					
a) <del>Center lines obliterated for 50 feet (15 m) or more.</del>					
b) <del>Edge lines obliterated for 50 feet (15 m) or more.</del>					
c) <del>No Passing Zone lines obliterated.</del>					
2) <del>Paved Shoulder 2 Feet (0.6 m) or Less.</del>					
a) <del>Center lines obliterated for 50 feet (15 m) or more.</del>					
b) <del>Edge lines obliterated on curves with a radius of 1,000 feet (300 m) or less.</del>					
c) <del>Edge lines obliterated at bridge approaches, or other obstructions within 3 feet (1 m) of the roadway, for 300 feet (90 m) or more.</del>					
d3) No Passing Zone lines obliterated.					
<b>Reason for Revision:</b> To have the specifications reflect current design and field practice.					
<b>County or City Input Needed (X one)</b>		<b>Yes</b>		<b>No X</b>	
<b>Comments:</b> Local input not required since the specification change only applies to Department projects.					
<b>Industry Input Needed (X one)</b>		<b>Yes</b>		<b>No X</b>	
<b>Industry Notified:</b>	<b>Yes</b>	<b>No X</b>	<b>Industry Concurrence:</b>	<b>Yes</b>	<b>No</b>
<b>Comments:</b>					

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Greg Mulder/Wayne Sunday		<b>Office:</b> Construction & Materials		<b>Item 11</b>	
<b>Submittal Date:</b> 2013.09.26			<b>Proposed Effective Date:</b> April 15, 2014		
<b>Article No.:</b> 2528.05, C <b>Title:</b> Temporary Barrier Rail (Traffic Control)			<b>Other:</b>		
<b>Specification Committee Action:</b> Deferred until the issue can be discussed with AGC.					
<b>Deferred:</b> X	<b>Not Approved:</b>	<b>Approved Date:</b>	<b>Effective Date:</b>		
<b>Specification Committee Approved Text:</b>					
<p><b>Comments:</b> The District 6 - Davenport RCE Office requested that the specifications define the payment instead of requiring an extra work order. The Committee discussed paying the contract rate for TBR or paying some increase on this rate, such as double to account for the small quantity. The Committee decided there should be some basis for this rate, so they will get input from the AGC. The Office of Construction and Materials indicated that they did not believe this is a large problem and only know of one specific time this was an issue.</p>					
<b>Specification Section Recommended Text:</b>					
<b>2528.05, C, Temporary Barrier Rail.</b>					
<b>Add the Article:</b>					
<p>3. Payment for repair or replacement of temporary barrier rail damaged by public traffic will be paid according to Article 1109.03, B.</p>					
<b>Comments:</b>					
<b>Member's Requested Change: (Do not use 'Track Changes', or 'Mark-Up'. Use <b>Strikeout</b> and <b>Highlight</b>.)</b>					
<b>C. Temporary Barrier Rail.</b>					
<p>1. Linear feet (meters) of Temporary Barrier Rail measured.                  2. Maintenance of temporary barrier rail is incidental to Temporary Barrier Rail.                  3. <b>Repaired or replaced due to damage by public traffic: extra work according to Article 1109.03, B.</b></p>					
<p><b>Reason for Revision:</b> Maintenance of TBR is reasonable to expect a contractor to bid costs for, but anticipating TBR being damaged requiring repair or total replacement is more difficult/costly to anticipate. Like crash cushions, these are safety devices are for the protection of both the public and workers and require timely action to address deficiencies. Providing payment for TBR that is damaged/destroyed will ensure that correction to the devices is expedited and reduces the overall risks.</p> <p>This proposed change clarifies contractors' responsibility for damaged temporary barrier rail. Similar to current specifications for crash cushions, this change will provide payment by contract modification if the contractor is required to replace or repair TBR that is damaged by public traffic.</p>					
<b>County or City Input Needed (X one)</b>		<b>Yes</b>		<b>No</b>	
<b>Comments:</b>					
<b>Industry Input Needed (X one)</b>		<b>Yes</b>		<b>No</b>	
<b>Industry Notified:</b>	<b>Yes</b>	<b>No</b>	<b>Industry Concurrence:</b>	<b>Yes</b>	<b>No</b>
<b>Comments:</b>					

**SPECIFICATION REVISION SUBMITTAL FORM**

<b>Submitted by:</b> Brian Smith		<b>Office:</b> Design	<b>Item 12</b>
<b>Submittal Date:</b> 9/3/2013		<b>Proposed Effective Date:</b> 1/22/2014	
<b>Article No.:</b> <b>Title:</b>		<b>Other:</b> Developmental Specifications for Contractor Furnished Borrow	
<b>Specification Committee Action:</b> Deferred until issues raised by the AGC can be addressed.			
<b>Deferred:</b> X	<b>Not Approved:</b>	<b>Approved Date:</b>	<b>Effective Date:</b>
<b>Specification Committee Approved Text:</b>			
<p><b>Comments:</b> The AGC is concerned about having to submit R sheets showing soil boring layouts. The Office of Design is determining a way to address this concern.</p> <p>There is one project in the January letting that will use this DS as a Special Provision since the DS has not yet been approved.</p>			
<p><b>Specification Section Recommended Text:</b> See attached DS for Contractor Furnished Borrow. Changes from the September Specification Committee meeting submittal are highlighted.</p>			
<p><b>Comments:</b> The following comments are from the September Specification Committee meeting:</p> <p>FHWA asked about NEPA clearances and permits. The Department will not review or verify clearances or permits, only ask the Contractor if they have obtained all necessary clearances or permits.</p> <p>SUDAS asked about the timeline for project implementation. The Office of Contracts stated that the Department has made a commitment to the AGC to inform contractors of projects requiring large borrows approximately 6 months before letting. The contractors can do some investigation prior to letting and then proceed if they are awarded the project. There will be some delay in beginning construction while the Contractor obtains the property and necessary clearances and permits. Projects requiring large borrows should be let in the fall or early winter to allow for this process.</p> <p>During a meeting with the AGC, the AGC asked if borrows could be pre-approved before the letting. The Department will not review any proposed borrows until after a contract has been signed.</p> <p>The Office of Construction and Materials asked what the preliminary costs for investigation will be. AGC indicated that doing some borings will cost in the neighborhood of \$2000. Further investigation would go up from there.</p> <p>The Office of Contracts indicated that the Construction Manual contains contact information for various state agencies that could provide information on potential issues with proposed borrows to the contractors prior to letting.</p> <p>The District 6 Office asked about historical and archaeological clearances, since the specification only mentions environmental clearances. It is intended that "environmental clearances" covers all site specific clearances and permits. Contractors are not required to obtain the same clearances as the Department is required to obtain. They must review for these issues, but not obtain clearances.</p> <p>The Office of Design pointed out that they cannot know what select material will be available from the Contractor's borrow. If select is available from the roadway cut, the designer will assume that select will be available from a nearby borrow and design the plan accordingly. If select is not available from roadway cut, the subgrade treatment will be designed as special backfill.</p> <p>Brian Smith will be the controller of this DS.</p> <p>It is intended that this DS be incorporated into the April GS so that it will apply to all projects. Cities and Counties will still have the option to provide borrows as well as on select State projects.</p> <p>The Office of Design indicated that balances will not be shown on the 'D' sheets, as the designer will not know where material is coming from. The 'T' sheets will have more totals, at least on every sheet, for the Contractors information.</p> <p>Embankment-in-Place, Contractor Furnish will be the bid item used for projects with contractor</p>			

furnished borrow. Do we need to define this bid item in the DS so that it is used properly?

The Office of Design indicated that the future Materials I.M., which is an attachment to the DS, has the Department as the reviewer of all proposed borrows. The language will be revised before the official Materials I.M. is released in April, so that Cities and Counties will be responsible for their own review of proposed borrows.

The District 4 Office asked about the Engineer witnessing samples. There is a difference in the language between projects with greater than 10,000 CY and projects with less than 10,000 CY. The Engineer will need to witness all samples, so the specification will be revised.

The District 4 Office asked about the Department's frequency of verification samples. This will need to be defined in the Materials I.M. It was suggested that this information be placed in Materials I.M. 204 and the suggested rate is 10%. This frequency will need to go in the DS until the Materials I.M. goes into effect.

The Office of Construction and Materials will make sure that the Materials I.M. is ready to be issued for April.

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**Member's Requested Change:** (Do not use 'Track Changes', or 'Mark-Up'. Use **Strikeout** and **Highlight**.)  
 See attached Developmental Specifications for Contractor Furnished Borrow

**Reason for Revision:** Provide specifications for contractor furnished borrows.

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

**Comments:** A previous version of these spec. revisions was shared with the industry in May. The current version has been submitted to AGC for

DS-120XX  
(New)



**DEVELOPMENTAL SPECIFICATIONS  
FOR  
CONTRACTOR FURNISHED BORROW**

**Effective Date  
January 22, 2014**

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

**2102.02, D, Borrow.**

**Replace the title and article:**

**~~Borrow Material Suitability.~~**

**1. Select Treatment Material.**

**a. Cohesive Soils.**

Meet all of the following requirements:

- 1) 45% or less silt size fraction.
- 2) 110 pcf (1750 kg/m<sup>3</sup>) or greater density (AASHTO T 99 Proctor Density or Materials I.M. 309).
- 3) Plasticity index greater than 10.
- 4) A-6 or A-7-6 soils of glacial origin.

**b. Granular Soils.**

Meet all of the following requirements:

- 1) 15% or less silt and clay.
- 2) 110 pcf (1750 kg/m<sup>3</sup>) or greater density (AASHTO T 99 Proctor Density or Materials I.M. 309).
- 3) Plasticity index, 3 or less.
- 4) A-1, A-2, or A-3 (0).

**c. ~~Special Backfill Material~~ ~~Material.~~**

Meet the requirements of Section 4132.

**d. ~~Modified Subbase Material.~~**

Meet the requirements of Section 4123.

**2. Suitable Soils.**

**a.** Ensure all soils provided for the construction of embankments meet the requirements below. They are suitable when moisture control or moisture and density control is designated.

- 1) 95 pounds per cubic foot (1500 kg/m<sup>3</sup>) or greater density (AASHTO T 99 Proctor Density or Materials I.M. 309).
- 2) AASHTO M 145-94 index of less than 30.
- 3) **Liquid Limit (LL) less than 50.**

- b. Soils not meeting these requirements are considered unsuitable soils, regardless of classification.
- c. When placing soil below water, use clean granular material.

**3. Unsuitable Soils.**

Place in the work only as specified by Standard Road Plan EW-102. Use in the work will be according to the definitions in Table 2102.02-1:

**Table 2102.02-1: Uses for Unsuitable Soils**

Definition	Use
<ul style="list-style-type: none"> <li>1. Peat or Muck.</li> <li>2. Soils with a plasticity index of 35 or greater.</li> <li>3. A-7-5 or A-5 having a density less than 85 pcf (1350 kg/m<sup>3</sup>) (AASHTO T 99 Proctor Density or Materials I.M. 309).</li> </ul>	Slope Dressing Only.
<ul style="list-style-type: none"> <li>1. All soils other than A-7-5 or A-5 having a density of 95 pcf (1500 kg/m<sup>3</sup>) or less (AASHTO T 99 Proctor Density or Materials I.M. 309).</li> <li>2. All soils other than A-7-5 or A-5 containing 3.0% or more carbon.</li> </ul>	Type C placement placed 3 feet (1 m) below top of subgrade in fills.
<ul style="list-style-type: none"> <li>1. A-7-6 (30 or greater).</li> <li>2. Residual clays (overlying bedrock), Paleosols, gumbo, and gumbotils regardless of classification.</li> </ul>	Type B placement placed 5 feet (1.5 m) below top of subgrade in fills.
<ul style="list-style-type: none"> <li>1. Shale.</li> <li>2. A-7-5 or A-5 soils having a density greater than 86 pcf (1351 kg/m<sup>3</sup>) but less than 95 pcf (1500 kg/m<sup>3</sup>) (AASHTO T 99 Proctor Density or Office or Materials I.M. 309).</li> </ul>	Type A placement placed in layers 5 feet (1.5 m) below top of subgrade in fills (Alternate layers to consist of suitable soils or Type C placement soils).

**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.

**a) 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) 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) Alternate Borrow Areas.**

An area outside the highway right-of-way provided by the Contractor from which the Contractor may obtain borrow material in lieu of designated borrow areas and to be used according to the contract documents.

**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. Unsuitable Type A, B, and C materials, with the exception of shale and residual clays, will be allowed. Place these unsuitable materials as specified in Standard Road Plan EW-102.

- c. Upon completion of designated borrows, 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. Do not place the estimated edge of water for a pond borrow closer than 100 feet (30 meters) from public right-of-way. A pond borrow is a borrow that has the intention of excavation below natural ground and leaving a body of water for a designated purpose.
  - g. Refer to Federal Aviation Administration (FAA) Advisory Circular 150/5200-33B for separation criteria for hazardous wildlife attractants on or near airports.
- 2. Contactor's Plan for Alternate Borrow or Revisions to Designated Borrow.**
- a. Submit a plan to the Engineer for use of proposed alternate or designated borrow intended to be used in a manner different from that shown in the contract documents. Also, 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 the Engineer. Test samples and provide results and verification samples to the Contracting Authority
  - b. The submission for use of alternate borrow areas shall include all such areas necessary or contemplated for completion of the planned work.
  - c. Approval of materials and their use will be based on AASHTO M 145-94 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 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 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, 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's Plan for Contractor Furnished Borrow**

**a. General.**

- 1) Approval of materials and their use as Select Treatment Materials will be based on Article 2102.03, F, 2, c.
- 2) **The Engineer may decline approval of a contractor furnished borrow(s) when:**
  - a) The Contractor's proposed plan fails to meet Proposed Borrow Report requirements.
  - b) The Contractor's plan for use of borrow areas, including quantity and quality of required material, is not sufficient to assure availability of required material.

**b. Total Project Quantity of Contractor Furnished Borrow Greater than 10,000 Cubic Yards (7650 m<sup>3</sup>).**

Sample and test proposed contractor borrow areas and submit Proposed Borrow Report as specified in Appendix A. **When the Contracting Authority determines it is necessary, sample in the presence of the Engineer.** Submit the report electronically to the Engineer. Include Iowa DOT Proposed Contractor Borrow Identification Form, sampling/field logs, and test reports. A minimum of 21 calendar days is required for review and approval by Contracting Authority. The Contracting Authority will not be responsible for damages or delays due to incomplete submittals or when approval of a borrow is declined.

**c. Total Project Quantity of Contractor Furnished Borrow less than 10,000 Cubic Yards (7650 m<sup>3</sup>).**

Sample proposed contractor borrow areas. When the Contracting Authority determines it is necessary, sample in the presence of the Engineer. Provide verification samples to the Contracting Authority.

**3 4. Contractor Obtained Clearances and Permits.**

Obtain necessary environmental clearances and permits, and comply with all restrictions attached to these clearances and permits for alternate borrow areas and sites where Contractor furnished borrow is obtained.

**4 5. 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 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 6. 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 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.

**7 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~~ 14 calendar 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.

**2105.02, Materials.**

**Replace the article:**

For topsoil furnished by the Contractor, provide material meeting the requirements of Articles 4170.09, A, 1 and 4170.09, A, 3, or strip existing topsoil from beneath template fill sections within project limits if stripping that topsoil is not already included as part of the project. Replace topsoil stripped from beneath template fill with an equivalent quantity of Class 10 or Embankment-in-Place material at no additional cost to the Contracting Authority.

**2108.05, Basis of Payment.**

**Add the article:**

- C. Overhaul will not be paid for contractor furnished material (such as borrow or topsoil) and waste material.

## APPENDIX A

### CONTRACTOR FURNISHED BORROW

#### **GENERAL**

This procedure describes requirements on sampling, testing, submittal, and approval of contractor furnished borrow sites/sources where project quantity of contractor furnished borrow is greater than 10,000 cubic yards (7650 m<sup>3</sup>).

Types of borrows covered in this IM are:

1. Excavated, which includes:

Drainable Borrow: A drainable borrow is one that has the intention of returning the site, as close as possible, to the previous activity/use, and

Pond Borrow: A pond borrow is one that has the intention of excavation below the natural ground and leaving a body of water for a designated purpose.

2. Non-excavated, such as stockpiled material, which includes:

Closed/Existing: A stockpile that will not have material added during the course of the project, and

Open/Active: A stockpile that will have material added during the course of the project.

#### **PROPOSED BORROW REPORT SUBMITTAL REQUIREMENTS**

A complete investigation of each proposed borrow shall include an adequate boring layout, a field log of each boring, appropriate sampling, and complete test results. Test pits instead of borings are allowed; however, this applies only for soil layer descriptions and sampling above the water table.

Only those sites the Contractor intends to utilize for project construction shall be submitted as proposed borrows. Proposed borrows shall collectively satisfy the borrow need for project construction.

The Engineer will inform the Contractor of acceptance or non-acceptance of the Proposed Borrow Reports.

If the volume of available suitable soil is insufficient due to the disapproval of a borrow or borrows, Contractor shall make a new submittal. Any new submittal shall follow the same procedure as previous submittals.

An open/active stockpile submittal will require information on the stockpile material currently in place (see submittal requirements for non-excavated borrows) and information on material that will be excavated and added to the stockpile during the course of the project (see submittal requirements for excavated borrows).

A complete Proposed Borrow Report for each proposed borrow shall include:

1. Completed Iowa DOT Proposed Contractor Borrow Identification Form (provided at the end of this document).
2. Aerial photo showing proposed borrow layout/design or location of the proposed stockpile. A recent Google Earth photo is sufficient.

For excavated borrows: in addition to borrow layout, aerial photo shall show the location of each boring along with its identification number.

For non-excavated borrows: aerial photo shall show sampling locations along with their identification number.

a. Sample/Boring Layouts:

- i. For excavated borrows, a boring layout pattern shall spatially cover a potential borrow site to adequately identify the soil layers encountered throughout the site, and provide for sufficient profile representation. Borings shall be spaced to maximize the coverage and at intervals no greater than 400 feet (120 m) (subject to borrow shape and general outline). An example of a boring layout is provided at the end of this document.

As an example: a 40 acre (16.2 ha) (square) borrow site will typically require a minimum of nine borings.

Boring depths shall extend to a reasonable depth below the anticipated maximum excavation for both drainable and pond borrows (such as 10 feet (3 m)) to help accommodate potential material shortfalls. If additional excavation during construction is required to meet the borrow need, additional borings (with sampling and testing) are required.

- ii. For non-excavated borrows, a sampling layout pattern shall spatially cover a potential borrow site to adequately represent the site and define the composition of soil material to be encountered. Sampling shall be spaced to maximize coverage and represent the entire site. Spacing shall be no greater than 400 feet (120 m) (subject to borrow shape and general outline).

b. Samples:

- i. Loose/bulk samples of sufficient size (30-40 pounds (14-18 kg)) shall be taken, multiple times throughout borrow site, for each soil layer encountered for excavated borrows or for each soil type for non-excavated borrows. For excavated borrows, a sample may only represent a similar layer in an adjacent boring no more than 400 feet (120 m) distant. Each sample shall be labeled with the boring ID and depth of sample, and shall be tested for mechanical analysis, determination of Atterberg limits, Munsell color comparison, percent of grain sizes, USDA textural and AASHTO classification, etc. (see Section "Laboratory test results" below). At least two samples for each predominant soil layer encountered shall be tested for Proctor density and optimum moisture.
- ii. Samples obtained prior to execution of contract shall be preserved by the Contractor. Samples obtained after execution of contract, the Engineer will collect verification samples (split samples) from boring or test pits sampled by the Contractor. At the discretion of the Engineer, random verification samples (split samples) shall be submitted to Central Materials Lab for verification testing.

3. Sampling/field logs:

- a. For excavated borrows, a descriptive field log of each borrow boring shall be submitted. An example is provided below. The following is the expected information for each boring in a borrow boring field log.
  - Boring ID number and GPS location
  - A field description of each soil layer (color, soil type, consistency, and geologic origin if possible)
  - Depth to bottom of each soil layer
  - A notation indicating if a layer was sampled
  - In-place moisture conditions of the soil layers
  - Measured water table depth and amount of time between drilling and reading

- b. For non-excavated borrows, a descriptive log of each sampling site shall be submitted. An example is provided at the end of this document. The following is the expected information for a sampling log.
  - Sample ID number and GPS location
  - A field description of each sample (color, soil type, and consistency) and depth
4. Laboratory test results:

The testing of borrow samples shall be performed by an accredited lab in accordance with Materials I.M. 208. (see <http://www.amrl.net/amrlsitefinity/default/aap/r18labs.aspx>)

Test results shall be submitted in report or tabulated form. An example of a tabulated form is provided at the end of this document.

Each test report shall contain:

  - Boring/Sample ID number, and GPS Location
  - For excavated borrows only, depth of sample (from – to) and in units of feet (meters).
  - Atterberg Limits (AASHTO T 89 and T 90, or ASTM D 4318)
  - Percent Gravel, Sand, Silt, and Clay (AASHTO T 88 or ASTM D 422)
  - Textural classification (USDA)
  - AASHTO classification (AASHTO M 145)
  - Proctor density and optimum moisture, when tested (see Section “Samples” above) (AASHTO T 99, ASTM D 698, or Materials I.M. 309)
  - Percent Carbon Content, where applicable (Office of Materials Test Method No. Iowa 111)
  - Sieve analysis (Percent Passing) (AASHTO T 88 or ASTM D 422)
  - Munsell Color comparison
5. For excavated borrows only, provide a minimum of two profile views through proposed borrow. Profiles shall be prepared so they include location of each boring, soil layers through proposed borrow, and extent and depth of the anticipated excavation.

#### **PROCESSING CONTRACTOR BORROW SUBMITTALS, APPROVAL, AND ACTIVITY**

This section outlines the procedures that the Engineer, Office of Construction and Materials, and Soils Design Section of the Office of Design will follow for excavated and non-excavated contractor furnished borrow.

##### **A. Verification Sampling**

1. The Engineer will be responsible for monitoring boring/sampling activity that occurs after execution of contract. At the discretion of the Engineer, random verification samples (split samples) ~~shall will~~ be obtained from those collected by the contractor (minimum frequency: 1 for every 10 contractor samples).
2. If taken, the Engineer shall submit verification samples to the Central Material Laboratory of the Office of Construction and Materials, for verification testing.
3. The Central Material Laboratory shall send the verification test results to the Engineer, Office of Construction and Materials, and Soils Design Section.

##### **B. Proposed Borrow Report**

1. The Engineer shall forward the reports to the Office of Construction and Materials, and Soils Design Section.

2. The Office of Construction and Materials, and Soils Design Section will evaluate quality (soil suitability) and quantity (soil type availability) of proposed borrows.
3. The Office of Construction and Materials, and Soils Design Section will coordinate a reply to the Engineer. The coordinated reply will include approval or disapproval of proposed borrows, and applicable comments.
4. The Engineer will convey approvals or disapprovals and applicable review comments or requirements to the Contractor.

**C. Borrow Excavation/Use**

The Engineer will monitor the use of the borrow material. If there are questions concerning quality of borrow material, the Engineer will request verification samples to determine material suitability and acceptable use.

IOWA DOT PROPOSED BORROW IDENTIFICATION FORM

Date \_\_\_\_\_

Project Number \_\_\_\_\_

County \_\_\_\_\_

Project Description \_\_\_\_\_

Contractor \_\_\_\_\_ Phone \_\_\_\_\_

1. Borrow ID#: \_\_\_\_\_
2. Location (Legal Description): \_\_\_\_\_  
\_\_\_\_\_
3. Size (acres (hectares)): \_\_\_\_\_
4. Type:  
 Drainable borrow                                       Stockpiled Borrow – Closed/Existing  
 Pond Borrow      Stockpiled Borrow – Open/Active  
 Other \_\_\_\_\_
5. Estimated quantities (in cubic yards (cubic meters)):  
    Class 10 (suitable) \_\_\_\_\_  
    Select \_\_\_\_\_  
    Unsuitable \_\_\_\_\_
6. Name, address, phone number, and email of contact person from Contractor if additional information is required: \_\_\_\_\_  
\_\_\_\_\_

Attachment:  Proposed Borrow Report

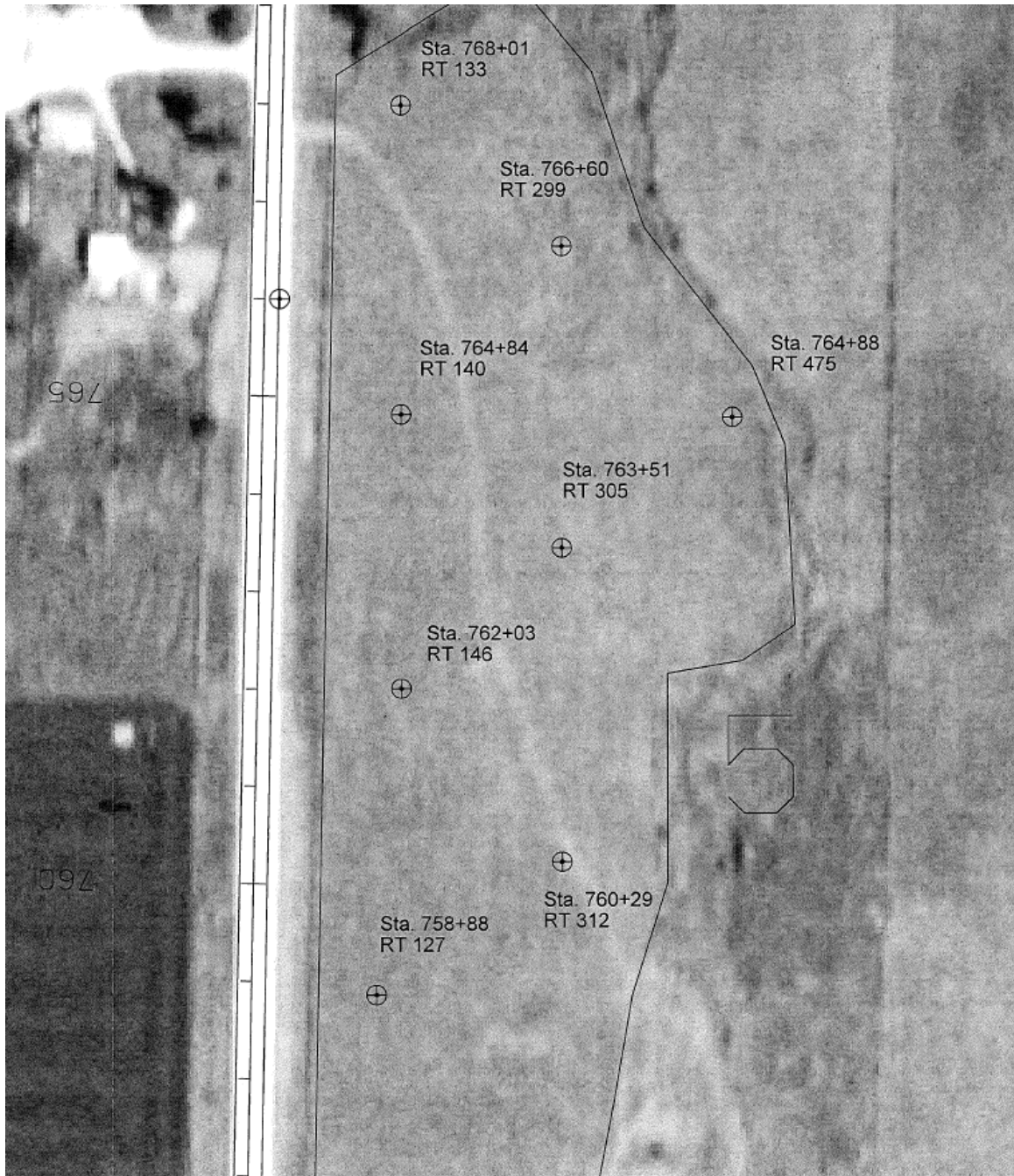
Office of Construction & Materials \_\_\_\_\_ Date \_\_\_\_\_

Office of Design, Soils Design \_\_\_\_\_ Date \_\_\_\_\_

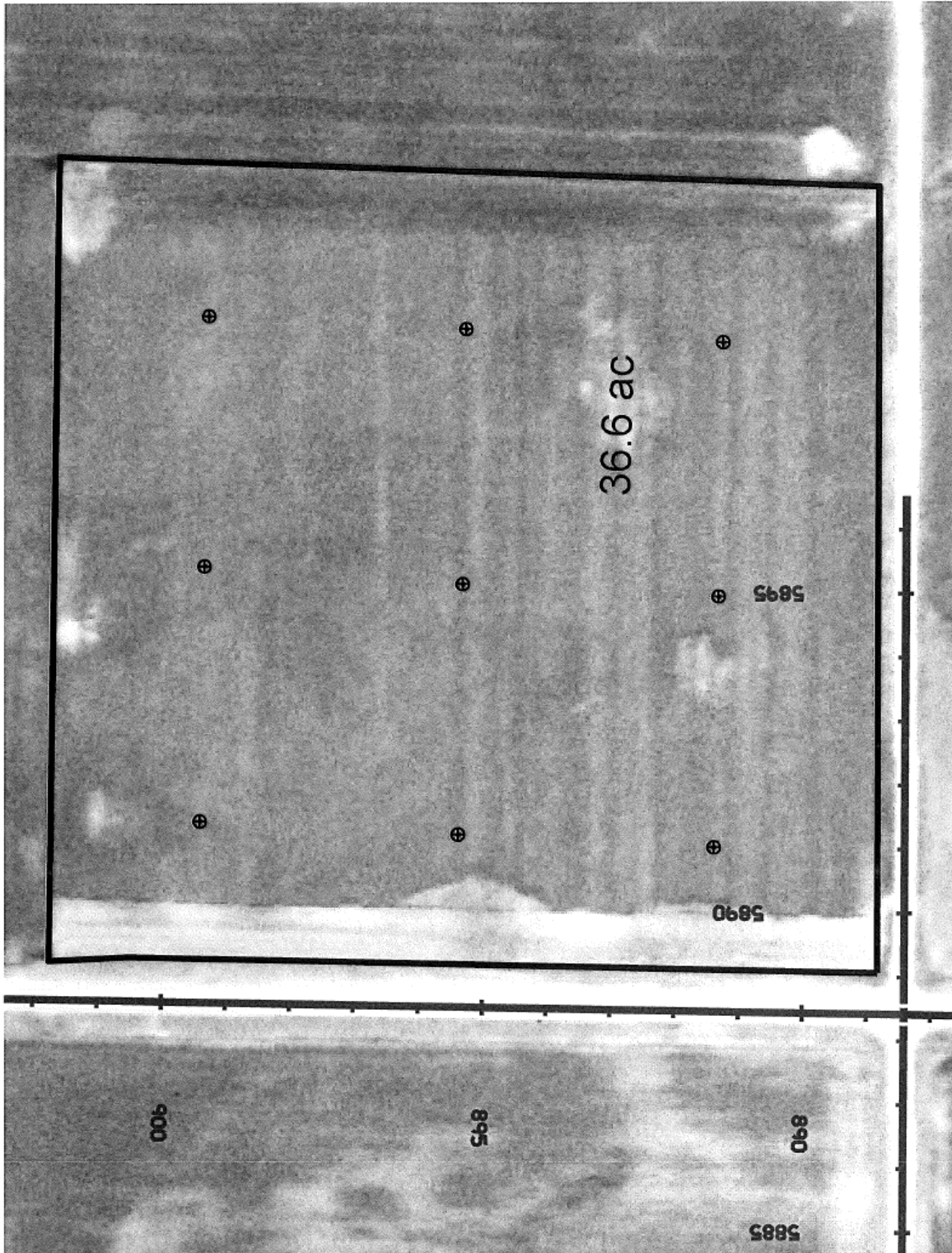
Resident Construction Engineer \_\_\_\_\_ Date \_\_\_\_\_



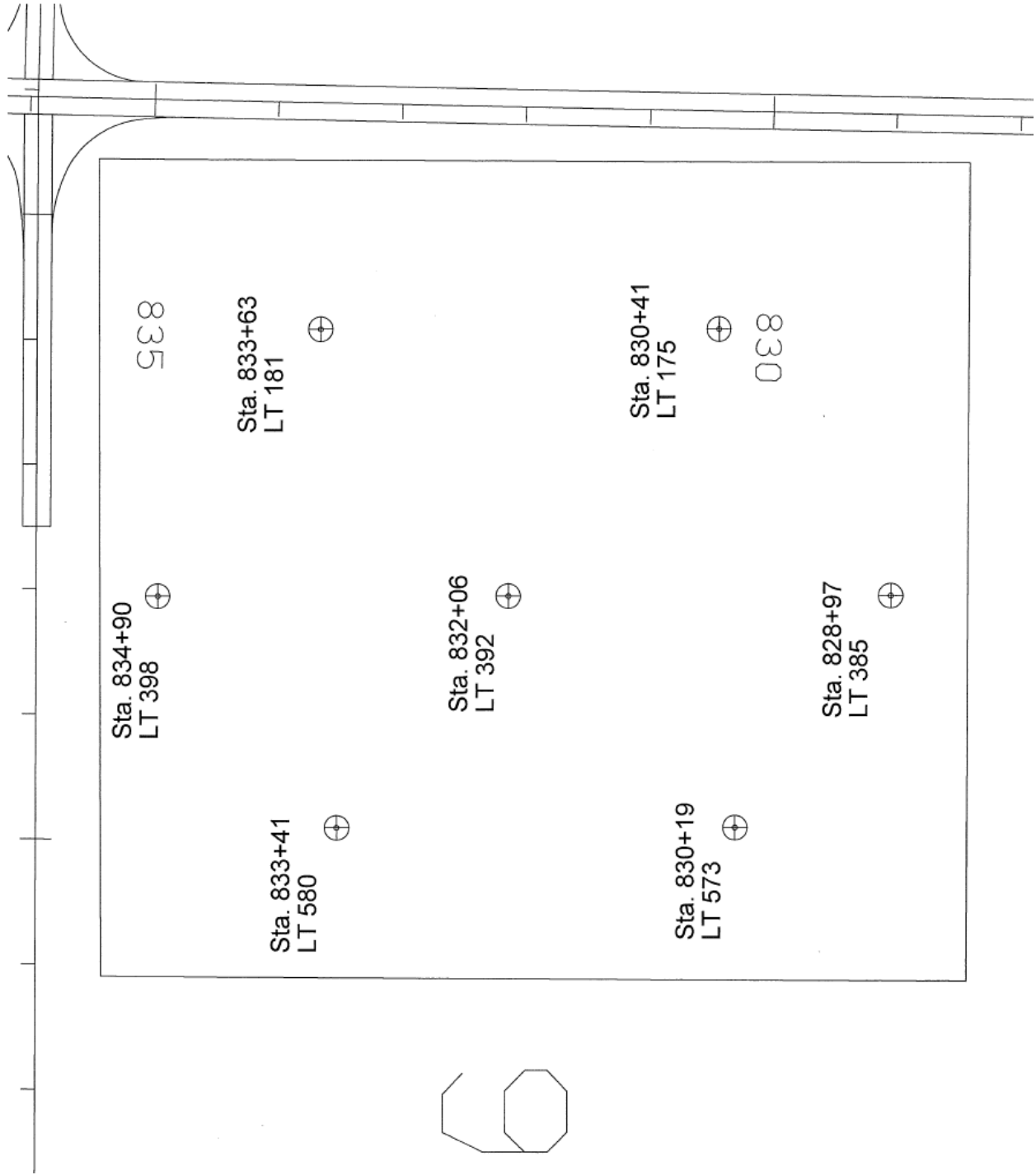
EXAMPLES: BORING LAYOUT, SAMPLING/BORING LOG, AND LABORATORY RESULTS



Example of boring layout



Example of boring layout



Example of boring layout



Date 7/15/2000

Project #

NHS-065-12(003)-3H-68

Borrow

Borrow

Soil Moisture

Sample or Referral

Depth

Layer

Description

Boring ID	GPS(x,y,z)	Soil Moisture	Sample or Referral	Depth	Layer	Description
R-0296	X: 529277.001	Moist	Sample	1.5	A	Black to Brown Silty Loam (Topsoil)
Borrow 1	Y: 4550344.034	Wet	Sample	8.5	B	Gray to Brown Sandy Glacial Clay
Hole 1	Z: 1000.35	Wet	Sample	16.0	C	Gray Medium Sand
		Wet	Sample	20.0	D	Gray Sandy Glacial Clay
		Wet	Sample	33.0	E	Dark Gray Glacial Clay with Occasional Sand Seams
Comment:				2.5	Wet	24 Hr H2O reading
R-0297	X: 529680.061	Moist	R-0296-A	2.0	A	Black to Brown Silty Loam (Topsoil)
Borrow 1	Y: 4550344.002	Wet	Sample	4.5	B	Gray to Brown Sandy Glacial Clay
Hole 2	Z: 1001.40	Wet	Sample	11.0	C	Brown to Gray Sand with binder
		Wet	R-0296-C	25.3	D	Gray Medium Sand
		Wet	R-0296-E	35.4	E	Dark Gray Glacial Clay with Occasional Sand Seams
Comment:				2.1	Wet	24 Hr H2O reading
R-0298	X: 5230079.325	Moist	Sample	1.2	A	Black Silty Loam (Topsoil)
Borrow 1	Y: 4550345.005	Moist	Sample	3.5	B	Brown Silty Clay Loam (Loess)
Hole 3	Z: 1000.30	Wet	R-0297-B	12.0	C	Gray to Brown Sandy Glacial Clay
		Wet	Sample	24.6	D	Gray to Brown Medium Sand
		Wet	Sample	30.8	E	Dark Gray Glacial Clay with Occasional Sand Seam
Comment:				3.5	Wet	12 Hr H2O reading

Example of boring log

Soil Survey 'English' Final Report (Both Group Indexes) 8/1/2013

Project: Road: Job:

County:

Station	Location	Dist.	LAYER	Lab No.	Sender No.	Plastic	GR	SA	SI	CL	Den	Proctor	CAR-BON	Texture	AASHTO	Color	Sieve Analysis(% Passing) **
Borrow 1	Hole 1	0.0-1.5	10-460	R0948A	45 22 23	0	49	38	13	93	25	3.8		LO	7-6(8) <6>	Black	100 3/4 100 200
Borrow 1	Hole 1	1.5-12.0	10-461	R0948B	40 15 25	1	21	50	28	112	16		3.8	LO	6(18) <14>	Gr Br	100 99 97 82 78 65
Borrow 1	Hole 1	12.0-35.0	10-462	R0948C	28 14 14	4	31	46	19	121	12			LO	Dark Gr	100 99 98 90 74 65	
Borrow 1	Hole 1	35.0-40.0	10-463	R0948D	29 14 15	0	31	50	19					LO	Dark Olive	100 96 78 69	
Borrow 1	Hole 1	40.0-50.0	10-464	R0948E	27 13 14	1	35	47	17					LO	Dark Gr	100 99 99 95 75 64	
Borrow 1	Hole 3	35.0-50.0	10-465	R0950D	27 15 12	1	33	49	17					LO	Dark Gr	100 99 99 95 76 66	
Borrow 1	Hole 4	20.0-32.0	10-466	R0951C	35 15 20	1	25	56	18					SI LO	LT O Br	100 99 95 82 74	
Borrow 1	Hole 4	32.0-40.0	10-467	R0951D	27 16 11	0	27	55	18					SI LO	Olive Br	100 96 81 73	
Borrow 1	Hole 5	0.0-1.0	10-468	R0952A	34 17 17	10	33	37	20					LO	LT O Br	98 93 91 90 84 68 57 *	
Borrow 1	Hole 5	1.0-20.0	10-469	R0952B	29 14 15	3	29	47	21					LO		100 98 97 94 75 68	
Borrow 1	Hole 5	20.0-50.0	10-470	R0952C	28 15 13	3	36	44	17					LO		100 99 97 90 72 61 *	
Borrow 1	Hole 6	0.5-3.0	10-471	R0953B	43 15 28	0	28	43	29	107	18	1.4		LO	OLIVE GR	100 95 87 72	
Borrow 1	Hole 6	25.0-35.0	10-472	R0953E	32 15 17	2	36	42	20					LO		100 99 98 88 70 62 *	
Borrow 1	Hole 6	35.0-50.0	10-473	R0953F	27 14 13	22	31	33	14					LO		94 88 82 78 71 55 47 *	
Borrow 1	Hole 18	0.0-2.5	10-356	A3874A	31 20 11	1	42	41	16	110	16	2.2		LO	V Dk Gr	100 99 99 88 63 57	
Borrow 1	Hole 18	2.5-10.0	10-357	A3874B	31 16 15	2	30	47	21	117	14			LO		100 99 98 92 78 68	
Borrow 1	Hole 18	10.0-15.0	10-358	A3874C	35 16 19	4	26	48	22	116	14			SI LO	OLIVE BR	100 98 97 96 92 79 70	
Borrow 1	Hole 18	15.0-21.0	10-359	A3874D	29 15 14	4	33	44	19	120	12			LO	Olive Br	100 98 96 92 75 63	
Borrow 1	Hole 18	21.0-39.0	10-360	A3874E	29 15 14	3	35	44	19	121	12			LO	Dark Gr	100 99 97 94 75 62	
Borrow 1	Hole 18	39.0-50.0	10-361	A3874F	22 13 9	1	45	41	14	124	11			LO	Dk Gr Br	100 99 99 94 65 55	
Borrow 2	Hole 7	0.0-2.0	10-491	L0018A	57 23 34	0	11	59	30	87	29	4.9		SI CL LO	7-6(33) <19>	Black	100 98 93 89
Borrow 2	Hole 7	2.0-6.0	10-492	L0018B	50 11 39	1	26	40	33					CL LO	Black	100 99 96 80 73	
Borrow 2	Hole 7	6.0-12.0	10-493	L0018C	28 17 11	2	35	46	17					LO	Dk Gr Br	100 99 98 93 74 63	
Borrow 2	Hole 7	12.0-40.0	10-494	L0018D	29 15 14	5	32	44	19					LO	Dk O Gr	100 98 97 95 89 73 63 *	
Borrow 2	Hole 8	1.5-4.5	10-495	L0019B	28 14 14	4	52	27	17	117	13			SA LO	Dk Gr Br	100 98 97 96 87 58 44	
Borrow 2	Hole 8	4.5-21.0	10-496	L0019C	24 16 8	4	47	37	12					LO		100 98 96 89 89 58 49	
Borrow 2	Hole 9	0.0-24.0	10-497	L0020C	26 14 14	2	34	44	20					LO	Dk Gr Br	100 99 98 93 75 64 *	
Borrow 2	Hole 3	0.0-1.5	10-498	L0023A	36 21 15	5	44	41	10	109	17	2.8		LO	V Dk Gr	100 97 96 95 89 63 51	
Borrow 2	Hole 3	1.5-23.0	10-499	L0023B	25 19 6	9	32	49	10					SI LO	LT O Br	100 97 93 91 87 71 59	
Borrow 2	Hole 3	23.0-26.0	10-500	L0023C	27 19 8	1	23	63	13					SI LO	Dark Gr	100 99 99 95 84 76	
Borrow 3	Hole 3	26.0-50.0	10-501	L0023D	19 16 3	5	53	34	8					SA LO		100 98 96 89 89 58 49	
Borrow 3	Hole 1	0.0-1.5	10-569	R0982A	48 23 25	3	35	43	19					LO	Olive Br	100 99 98 93 75 64 *	
Borrow 3	Hole 1	1.5-16.0	10-570	R0982B	29 14 15	7	33	41	19	121	12			LO	V Dk Gr	100 97 96 95 89 63 51	
Borrow 3	Hole 1	16.0-19.0	10-571	R0982C	22 13 9	4	54	30	12	124	11			SA LO	LT O Br	100 97 93 91 87 71 59	
Borrow 3	Hole 1	19.0-25.0	10-572	R0982D	26 13 13	4	42	37	17					LO	Dark Gr	100 98 96 85 57 42 *	
Borrow 3	Hole 1	25.0-28.0	10-573	R0982E	48 18 30	3	25	34	38					CL LO		100 99 98 97 91 79 72 *	
Borrow 3	Hole 1	28.0-30.0	10-574	R0982F	21 12 9	5	52	31	12					SA LO	LT O Br	100 99 97 95 85 59 43	
Borrow 3	Hole 1	30.0-35.0	10-575	R0982G	20 13 7	8	53	28	11					SA LO	Dk Gr Br	100 97 92 78 54 39	
Borrow 3	Hole 1	35.0-50.0	10-576	R0982H	24 12 12	9	37	38	16					LO	V Dk Gr Br	100 99 96 91 83 65 54 *	
Borrow 3	Hole 3	0.0-3.0	10-577	R0984A	48 24 24	0	28	53	19					SI LO	Black	100 95 79 72	
Station	Dist.	Layer	Lab No.	S No.	LL	PL	PI	GR	SA	SI	CL	Den	M	CRB	Texture	Color	Sieve Analysis(% Passing) **
					3/4	3/8	4	10	40	100	200						

Samples bracketed by asterisks (\*) meet the 'Select' criteria except for a missing proctor

Example of laboratory test results