MINUTES
OF
IOWA DOT SPECIFICATION COMMITTEE MEETING

October 13, 2016

Members Present:	Darwin Bishop	District 3 - Construction
	Mark Brandl	District 6 - Davenport RCE
	Jeff Devries	District 1 - Materials
	Eric Johnsen, Secretary	Specifications Section
	Gary Novey	Office of Bridges & Structures
	Wes Musgrove	Office of Contracts
	Tom Reis, Chair	Specifications Section
	Brian Smith	Office of Design
Members Not Present:	Donna Buchwald	Office of Local Systems
	Greg Mulder	Office of Construction & Materials
	Charlie Purcell	Project Delivery Bureau
	Willy Sorensen	Office of Traffic & Safety
Advisory Members Present:	Chris Cromwell	FHWA
	Jacqueline DiGiacinto Miskimins	Office of Employee Services
	Tammy Nicholson	Office of Location & Environment
	Ernie Steffensmeier	Lee County
Others Present:	John Dostart	Office of Local Systems
	Kyle Frame	Office of Construction & Materials
	Melissa Serio	Office of Construction & Materials

Tom Reis, Specifications Engineer, opened the meeting. The following items were discussed in accordance with the agenda dated October 3, 2016:

The agenda is as follows:

1. **Section 2402, Excavation for Structures.**

Article 2416.03, D, 4, d, Placing Backfill Material around Pipe Culverts (Rigid Pipe Culverts).

Article 2535.03, A, 2, Excavation (Bin Type Crib Walls).

The Offices of Design and Construction and Materials requested to add specifications for backfilling and compaction by flooding.

2. **Article 2416.03, D, 2, a, 1, Class B Bedding (Rigid Pipe Culverts).**

Article 2417.03, C, 1, Class B Bedding (Corrugated Culverts).

The Offices of Design and Construction and Materials requested to bring the specifications in line with a road standard.

3. Article 2601.03, B, 4, b, 1, Application of Fertilizer (Erosion Control).

The Office of Construction and Materials requested to clarify what an equivalent fertilizer is.

4. Article 2602.01, D, 2, Water Pollution Control Quality Control.

The Office of Construction and Materials requested to allow a subcontractor to attend weekly storm water site inspections if the Contractor is not mobilized onsite.

5. Article 4100.06, Testing Zinc Coating.

The Office of Construction and Materials requested removal of an obsolete test method.

6. Article 4108.01, Fly Ash (Supplementary Cementitious Materials).

The Office of Construction and Materials requested separate specifications for fly ash used for soil stabilization.

7. Article 4151.03 E, Stainless Steel Reinforcement.

The Office of Construction and Materials requested to clarify that S32304 type 2304 stainless steel is acceptable.

8. Article 4169.07, B, Hydraulic Mulches (Erosion Control Materials).

Article 4169.10, A, Special Ditch Control, Turf Reinforcement Mat, Slope Protection, and Transition Mat (Erosion Control Materials).

The Office of Construction and Materials requested to remove physical properties requirements for hydraulic mulch so that approval is based on performance and add length requirement for TRM staples.

9. Article 4196.01, B, 6, Bridge Abutment Backfill Fabric.

The Office of Construction and Materials requested to revise an improperly applied property for bridge abutment backfill fabric.

10. DS-15016, Small Business Development Contracts.

The Offices of Employee Services and Contracts requested updates to the Developmental Specifications for Small Business Development Contracts.

11. Article 4134.02, Gradation (Floodable Backfill Material).

The District 1 Office requested to clarify the allowable gradations for floodable backfill.

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Brian Smith / Greg Mulder / Melissa Serio	**Office:** Design / Construction & Materials	**Item 1**
Submittal Date: 9/21/2016	**Proposed Effective Date:** 4/18/2017	
Section No.: 2402 **Title:** Excavation for Structures **Article No.:** 2416.03, D, 4, d **Title:** Placing Backfill Material around Pipe Culverts (Rigid Pipe Culverts) **Article No.:** 2535.03, A, 2 **Title:** Excavation (Bin Type Crib Walls)	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2016	**Effective Date:** 4/18/2017

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

2402.03, Construction.

Add the Article and renumber existing Article:

J. Backfilling and Compaction of Pipe and Reinforced Box Culverts by Flooding.

1. Use floodable backfill material meeting the requirements of Section 4134. When required, use porous backfill material meeting the requirements of Section 4131.

2. When shown in the contract documents, use perforated subdrain meeting requirements of Section 4143.

3. When backfilling and compaction by flooding is required, backfill may be placed in lifts up to 2 feet thick. Place backfill simultaneously on both sides of culvert. Determine if pipe culverts need to be restrained and take appropriate actions to prevent floating of culverts during backfilling, flooding, and compaction.

4. Begin surface flooding for each lift at the inlet end of the culvert and progress to the outlet. To ensure uniform surface flooding and adequate compaction, fan-spray water in successive 6 to 8 foot increments using a 2 inch diameter hose for three minutes within each increment. Run hose fully, but with water pressure low enough to avoid eroding cohesive soil plugs.

5. After flooding, evaluate effectiveness of compaction with a vibratory pan compactor. If pan compactor produces visible compaction, repeat flooding process until pan compactor produces no visible compaction.

~~J~~ K. Classification of Excavation.

2402.04, Method of Measurement.

Add the Article:

I. Flooded Backfill.

Quantity of Flooded Backfill, in cubic yards, will be the quantity shown in the contract documents, including pipe culverts installed by fill installation. Quantity measured for payment will not be adjusted unless the quantity of culvert installed is adjusted.

2402.05, Basis of Payment.

Add the Article:

I. Flooded Backfill.

Contractor will be paid contract unit price for Flooded Backfill per cubic yard. Backfill material subdrains, restraining culverts against floating, and water required for flooding will not be measured separately for payment, but will be considered incidental to the contract unit price bid for Flooded Backfill.

2416.03, D, 4, d.

Add as the last sentence of the Article:

If backfilling and compaction by flooding is specified, comply with Article 2402.03, J.

2535.03, A, 2.

Replace the last sentence of the article:

When not included in contracts for grading, all excavation in connection with this construction is Class 23 Excavation according to Article 2402.03, ~~J~~ K.

Comments:

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

2402.03, J, Backfilling and Compaction of Pipe and Reinforced Box Culverts by Flooding.

Add as a new Article:

1. Use floodable backfill material meeting the requirements of Section 4134. When required, use porous backfill material meeting the requirements of Section 4131.

2. When shown in the contract documents, use perforated subdrain meeting requirements of Section 4143.

3. When backfilling and compaction by flooding is required, backfill may be placed in lifts up to 2 feet thick. Place backfill simultaneously on both sides of culvert. Determine if pipe culverts need to be restrained and take appropriate actions to prevent floating of culverts during backfilling, flooding, and compaction.

4. Begin surface flooding for each lift at the inlet end of the culvert and progress to the outlet. To ensure uniform surface flooding and adequate compaction, fan-spray water in successive 6 to 8 foot increments using a 2 inch diameter hose for three minutes within each increment. Run hose fully, but with water pressure low enough to avoid eroding cohesive soil plugs.

5. After flooding, evaluate effectiveness of compaction with a vibratory pan compactor. If pan compactor produces visible compaction, repeat flooding process until pan compactor produces no visible compaction.

Article 2402.03, J, Classification of Excavation.

Renumber as 2402.03, K.

2402.04, I, Flooded Backfill.

Add as a new Article:

Quantity of Flooded Backfill, in cubic yards, will be the quantity shown in the contract documents, including pipe culverts installed by fill installation. Quantity measured for payment will not be adjusted unless the quantity of culvert installed is adjusted.

2402.05, I, Flooded Backfill.

Add as a new Article:

Contractor will be paid contract unit price for Flooded Backfill per cubic yard. Backfill material subdrains, restraining culverts against floating, and water required for flooding will not be measured separately for payment, but will be considered incidental to the contract unit price bid for Flooded Backfill.

2416.03, D, 4, d.

Add as the last sentence:

If backfilling and compaction by flooding is specified, comply with Article 2402.03, J.

2535.03, A, 2.

Replace the last sentence of the article:

When not included in contracts for grading, all excavation in connection with this construction is Class 23 Excavation according to Article 2402.03, ~~J~~K.

Reason for Revision: Add specifications for backfilling and compaction by flooding. This has been and SS for several years

New Bid Item Required (X one)	**Yes**	**No** X
Bid Item Modification Required (X one)	**Yes**	**No** X
Bid Item Obsoletion Required (X one)	**Yes**	**No** X

Comments:

County or City Comments:

Industry Comments:

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Brian Smith / Greg Mulder / Melissa Serio	**Office:** Design / Construction & Materials	**Item 2**
Submittal Date: 9/21/2016	**Proposed Effective Date:** 4/18/2017	
Article No.: 2416.03, D, 2, a, 1 **Title:** Class B Bedding (Rigid Pipe Culverts) **Article No.:** 2417.03, C, 1 **Title:** Class B Bedding (Corrugated Culverts)	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2016	**Effective Date:** 4/18/2017

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

2416.03, D, 2, a, 1, Class B Bedding.

Replace the Article:

~~Class B bedding consists of a 2 inch cushion of sand shaped with a template to a concave saddle in compacted or natural earth to such a depth that 15% of the height of the pipe rests on the sand cushion below the adjacent ground line.~~ Place Class B Bedding as shown in the contract documents.

2417.03, C, 1, Class B Bedding.

Replace the article:

When installing corrugated metal pipe or polyethylene pipe for roadway culverts, ~~use Class B Bedding described in Article 2416.03, D, 2~~ place Class B Bedding as shown in the contract documents.

Comments:

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

2416.03, D, 2, a, 1, Class B Bedding.

Replace the article:

~~Class B bedding consists of a 2 inch cushion of sand shaped with a template to a concave saddle in compacted or natural earth to such a depth that 15% of the height of the pipe rests on the sand cushion below the adjacent ground line.~~Place Class B Bedding as shown in the contract documents.

2417.03, C, 1, Class B Bedding.

Replace the article:

When installing corrugated metal pipe or polyethylene pipe for roadway culverts, ~~use Class B Bedding described in Article 2416.03, D, 2~~ place Class B Bedding as shown in the contract documents.

Reason for Revision: The specifications do not match the Class B Bedding shown on Standard Road Plan DR-101. This change will bring the specifications in line with the standard.

New Bid Item Required (X one)	**Yes**	**No** X

Bid Item Modification Required (X one)	**Yes**	**No** X
Bid Item Obsoleting Required (X one)	**Yes**	**No** X
Comments:		
County or City Comments:		
Industry Comments:		

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Greg Mulder / Melissa Serio	**Office:** Construction & Materials	**Item 3**
Submittal Date: 9/22/16	**Proposed Effective Date:** April 2017 GS	
Article No.: 2601.03, B, 4, b, 1) **Title:** Application of Fertilizer (Erosion Control)	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2016	**Effective Date:** 4/18/2017

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

2601.03, B, 4, b, 1.

Add to the end of the Article:

A fertilizer will be considered equivalent when it meets the minimum total pounds per acre of nitrogen (N), available phosphoric acid (P_2O_5), and water soluble potassium (K_2O).

Comments:

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

2601.03, B, 4, b, 1)

Replace the Article:

b. Application of Fertilizer.

1) Spread fertilizer over the areas at the rate designated in Article 2601.03, C for each seed type, unless specified otherwise in the contract documents. A fertilizer will be considered equivalent when it meets the minimum total pounds per acre of nitrogen (N), available phosphoric acid (P_2O_5), and water soluble potassium (K_2O).

Reason for Revision: Provide clarification on meaning of an "equivalent" fertilizer that is referenced later in the specification several times.

New Bid Item Required (X one)	**Yes**	**No** x
Bid Item Modification Required (X one)	**Yes**	**No** x
Bid Item Obsoletion Required (X one)	**Yes**	**No** x

Comments: No changes

County or City Comments:

Industry Comments:

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Greg Mulder / Melissa Serio	**Office:** Construction & Materials	**Item 4**
Submittal Date: 9/22/16	**Proposed Effective Date:** April 2017 GS	
Article No.: 2602.01, D, 2 **Title:** Water Pollution Control Quality Control - Water Pollution Control (Soil Erosion)	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2016	**Effective Date:** 4/18/2017

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

2602.01, D, 2.

Replace the first bullet:

- Attend required storm water inspections with the Contracting Authority. However, when the Contractor is not mobilized onsite, the Contractor may delegate this responsibility to a subcontractor.

Comments:

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

2602.01, D, 2

Replace the Article:

2. Additional responsibilities of an ESC Basics trained individual that shall not be subcontracted include:
   - Attend required storm water inspections with the Contracting Authority. However, when the Contractor is not mobilized onsite, the Contractor has the option to delegate this responsibility to a subcontractor.
   - Prepare required initial Erosion Control Implementation Plan (ECIP) submittal and ECIP updates.
   - Attend construction progress meetings to discuss erosion and sediment control issues.

Reason for Revision: Provide option for subcontractor to attend weekly storm water site inspections in place of contractor for times when the contractor is not mobilized onsite.

New Bid Item Required (X one)	**Yes**	**No** x
Bid Item Modification Required (X one)	**Yes**	**No** x
Bid Item Obsoletion Required (X one)	**Yes**	**No** x

Comments: No changes

County or City Comments:

Industry Comments:

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Greg Mulder / Kyle Frame	**Office:** Construction and Materials	**Item 5**
Submittal Date: 9/21/16	**Proposed Effective Date:** April 2017	
Article No.: 4100.06 **Title:** Testing Zinc Coating	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2016	**Effective Date:** 4/18/2017

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

4100.06, A.

Delete the last sentence:

~~Method 804 may be used when a coating is specified by uniformity.~~

Comments:

Delete last sentence in paragraph A.

A. The weight (mass) of coating on zinc-coated articles will be determined using Iowa DOT Office of Materials Laboratory Test Methods. Normally, Test Method No. Iowa 802 will be used. Test Method No. Iowa 803 may be used when allowed by the coating specification or when the Engineer approves nondestructive testing. ~~Method 804 may be used when a coating is specified by uniformity.~~

Reason for Revision: I can't find any record of Test Method 804, it is no longer being used.

New Bid Item Required (X one)	**Yes**	**No** X
Bid Item Modification Required (X one)	**Yes**	**No** X
Bid Item Obsoletion Required (X one)	**Yes**	**No** X

Comments:

County or City Comments:

Industry Comments:

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Greg Mulder / Melissa Serio	**Office:** Construction & Materials	**Item 6**
Submittal Date: 9/22/16	**Proposed Effective Date:** April 2017 GS	
Article No.: 4108.01 **Title:** Fly Ash (Supplementary Cementitious Materials)	**Other:**	

Specification Committee Action: Approved with changes.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2016	**Effective Date:** 4/18/2017

Specification Committee Approved Text:

4108.01, Fly Ash.

Add the Article:

E. Fly ash for soil stabilization shall meet ASTM C 618, Class C, except loss of ignition (LOI) requirement will not apply. Fly ash shall also contain a minimum of 22% calcium oxide (CaO).

Comments: The Office of Construction and Materials requested to remove the reference to "Note 2 of Section 3.1.2" as it was not necessary.

The Office of Construction and Materials explained that this revision came about due to local shortages of fly ash material due to reduced burning of coal for electricity.

Specification Section Recommended Text:

4108.01, Fly Ash.

Add the Article:

E. Fly ash for soil stabilization shall meet ASTM C 618, Class C, except Note 2 of Section 3.1.2 and loss of ignition (LOI) requirement will not apply. Fly ash shall also contain a minimum of 22% calcium oxide (CaO).

Comments:

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

4108.01, E

Add the Article:

E. Fly ash used for soil stabilization shall meet ASTM C 618, Class C, except Note 2 of Section 3.1.2 and loss of ignition (LOI) requirement will not apply. Fly ash shall also contain a minimum of 22% calcium oxide (CaO).

Reason for Revision: Provide different requirements for fly ash used in soil stabilization from fly ash used in concrete paving and structures.

New Bid Item Required (X one)	**Yes**	**No** x
Bid Item Modification Required (X one)	**Yes**	**No** x
Bid Item Obsoletion Required (X one)	**Yes**	**No** x

Comments: No changes
County or City Comments:
Industry Comments:

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Greg Mulder / Kyle Frame	**Office:** Construction and Materials	**Item 7**
Submittal Date: 9/21/16	**Proposed Effective Date:** April 2017	
Article No.: 4151.03 E **Title:** Stainless Steel Reinforcement	**Other:**	

Specification Committee Action: Approved with changes.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2016	**Effective Date:** 4/18/2017

Specification Committee Approved Text:
4151.03, E, 1.

Replace the Article:

Stainless steel reinforcement bars shall be deformed and meet requirements of ASTM A 955 and be one of the following ~~grade,~~ UNS designations~~, and~~ (types): ~~listed in Materials I.M. 452.~~

- S24100 (XM-28)
- S31653 (316LN)
- S31803
- S32304 (2304)

UNS designations (types) listed in this specification meet the requirements of ASTM A 955. Bars shall be heat treated using one of the three methods listed in ASTM A 955.

Comments: The Office of Construction and Materials revised the language to reduce confusion.

Specification Section Recommended Text:
4151.03, E, 1.

Add as the second sentence:

UNS S32304 type 2304 is not listed in Table 2, Chemical Requirements of Typical Alloys in ASTM A 955, but it does meet the requirement of ASTM A 955.

Comments:

Member's Requested Change: **(Do not use 'Track Changes', or 'Mark-Up'. Use ~~Strikeout~~ and Highlight.)**
Add a sentence to paragraph E 1.

E. Stainless Steel Reinforcement.

1. Stainless steel reinforcement bars shall be deformed and meet requirements of ASTM A 955 and be the grade, UNS designations, and types listed in Materials I.M. 452. UNS S32304 type 2304 is not listed in Table 2, Chemical Requirements of Typical Alloys in ASTM A955 but it does meet the requirement of ASTM A955. Bars shall be heat treated using one of the three methods listed in ASTM A 955.

Reason for Revision: This specification references ASTM A955 which has a table listing some

stainless steel grades. S32304 type 2304 meets the requirements of ASTM A955 but it is not listed in the table which has caused some confusion. Since it is not readily apparent that type 2304 is acceptable per ASTM A955, I am adding it to the specification. IM 452 lists the type 2304 as an approved type.		
New Bid Item Required (X one)	**Yes**	**No** X
Bid Item Modification Required (X one)	**Yes**	**No** X
Bid Item Obsoletion Required (X one)	**Yes**	**No** X
Comments:		
County or City Comments:		
Industry Comments:		

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Greg Mulder / Melissa Serio	**Office:** Construction & Materials/Design	**Item 8**
Submittal Date: 9/22/16	**Proposed Effective Date:** April 2017 GS	
Article No.: 4169.07, B **Title:** Hydraulic Mulches (Erosion Control Materials) **Article No.:** 4169.10, A **Title:** Special Ditch Control, Turf Reinforcement Mat, Slope Protection, and Transition Mat (Erosion Control Materials)	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2016	**Effective Date:** 4/18/2017

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

4169.07, B, Hydraulic Mulches.

Replace the Articles:

2. Bonded Fiber Matrix.

~~**a.** Long-strand wood fibers held together by organic tackifiers and bonding agents that, when dry, become insoluble and non-dispersible.~~

~~**b.** Upon curing (24 to 48 hours) forms a continuous, 100% coverage, flexible, absorbent, erosion-resistant blanket that encourages seed germination.~~

~~**c**~~ **a.** Manufactured to be applied with standard hydraulic mulching equipment and dyed green to facilitate visual metering during application.

~~**d.** Contains no growth or germination inhibiting factors.~~

~~**e.** Physical Properties:~~

~~**1) Fibers:** Virgin wood, greater than 88% by volume.~~

~~**2) Organic Material:** Greater than 96% by volume.~~

~~**3) Tackifier:** 8 to 10%.~~

~~**4) pH:** 4.8 minimum.~~

~~**5) Moisture Content:** 12% ±3%.~~

~~**6) Minimum Water Holding Capacity:** 1.2 gallons per pound.~~

~~**f**~~ **b.** All components pre-packaged by manufacturer to ensure material performance and compliance. Field mixing of additives or any components will not be allowed.

~~**g**~~ **c.** ~~Other products not meeting requirements of Article 4169.07, B, 2, e, may be approved if they m~~Meet the following requirements:

1) Contain non-toxic tackifiers that upon drying become insoluble and non-dispersible to eliminate direct raindrop impact on soil according to ASTM D 7101 and EPA 2021.0-1.

2) Contain no germination or growth inhibiting factors and do not form a water-resistant crust that can inhibit plant growth.

3) Hydraulic mulch that is completely photo-degradable or biodegradable.

4) Contain a minimum 90% organic material according to ASTM D 2974.

5) Have a rainfall event (R-factor) of 140 < R according to ASTM D 6459.

6) Have a cover factor of C ≤ 0.03 according to ASTM D 6459.
7) Vegetation Establishment of 400% minimum according to ASTM D 7322.
8) Water Holding Capacity 600% minimum according to ASTM D 7367.

3. Mechanically-Bonded Fiber Matrix.

~~**a.** Long-strand wood fibers and crimped, interlocking synthetic fibers.~~
~~**b.** Upon curing (2 hours) forms a continuous, 100% coverage, flexible, absorbent, porous, erosion-resistant blanket that encourages seed germination.~~
~~**c**~~ **a.** Manufactured to be applied with standard hydraulic mulching equipment and dyed green to facilitate visual metering during application.
~~**d.** Contains no growth or germination inhibiting factors.~~
~~**e.** Physical Properties:~~
~~**1) Virgin Wood Fibers:** 73% minimum.~~
~~**2) Crimped, Interlocking Synthetic Fibers:** 5% ±1%.~~
~~**3) Tackifier:** 10% ±1%.~~
~~**4) Moisture Content:** 12% ±3%.~~
~~**5) Minimum Water-Holding Capacity:** 1.2 gallons per pound.~~
~~**6) pH:** 4.8 minimum.~~
~~**f**~~ **b.** All components pre-packaged by manufacturer to ensure material performance and compliance. Field mixing of additives or any components will not be allowed.
~~**g**~~ **c.** ~~Other products not meeting requirements in Article 4169.07, B, 3, e, may be approved if they m~~Meet the following requirements:
1) Contain non-toxic tackifiers that upon drying become insoluble and non-dispersible to eliminate direct raindrop impact on soil according to ASTM D 7101 and EPA 2021.0-1.
2) Contain no germination or growth inhibiting factors and do not form a water-resistant crust that can inhibit plant growth.
3) Hydraulic mulch that is completely photo-degradable or biodegradable.
4) Contain a minimum 90% organic material according to ASTM D 2974.
5) Have a rainfall event (R-factor) of 175 < R according to ASTM D 6459.
6) Have a cover factor of C ≤ 0.01 according to ASTM D 6459.
7) Vegetation Establishment of 500% minimum according to ASTM D 7322.
8) Water Holding Capacity of 700% minimum according to ASTM D 7367.

4169.10, A, Wire Staples.

Replace the Article:

A. Wire Staples.

Meet the following requirements for wire staples ~~for holding special ditch control wood excelsior mat and special ditch control jute mesh over sod~~:

1. U-shaped wire staples.

2. Each leg a minimum of 6 inches long for special ditch control and slope protection and 10 inches long for turf reinforcement mat. In sandy soil conditions the Engineer may require the length of each leg to be a minimum of 12 inches.

3. No. 11 diameter wire.

4. Staples of sufficient hardness to facilitate installation without bending.

Comments:

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

4169.07, B, 2 & 3:

Replace the Articles:

2. Bonded Fiber Matrix.

~~**a.** Long-strand wood fibers held together by organic tackifiers and bonding agents that, when dry, become insoluble and non-dispersible.~~

~~**b.** Upon curing (24 to 48 hours) forms a continuous, 100% coverage, flexible, absorbent, erosion-resistant blanket that encourages seed germination.~~

a ~~**c.**~~ Manufactured to be applied with standard hydraulic mulching equipment and dyed green to facilitate visual metering during application.

~~**d.** Contains no growth or germination inhibiting factors.~~

~~**e.** Physical Properties:~~

~~**1) Fibers:** Virgin wood, greater than 88% by volume.~~

~~**2) Organic Material:** Greater than 96% by volume.~~

~~**3) Tackifier:** 8 to 10%.~~

~~**4) pH:** 4.8 minimum.~~

~~**5) Moisture Content:** 12% ±3%.~~

~~**6) Minimum Water Holding Capacity:** 1.2 gallons per pound.~~

b ~~**f.**~~ All components pre-packaged by manufacturer to ensure material performance and compliance. Field mixing of additives or any components will not be allowed.

c ~~**g.**~~ ~~Other products not meeting requirements of Article 4169.07, B, 2, e, may be approved if they m~~ Meet the following requirements:

1) Contain non-toxic tackifiers that upon drying become insoluble and non-dispersible to eliminate direct raindrop impact on soil according to ASTM D 7101 and EPA 2021.0-1.

2) Contain no germination or growth inhibiting factors and do not form a water-resistant crust that can inhibit plant growth.

3) Hydraulic mulch that is completely photo-degradable or biodegradable.

4) Contain a minimum 90% organic material according to ASTM D 2974.

5) Have a rainfall event (R-factor) of 140 < R according to ASTM D 6459.

6) Have a cover factor of C ≤ 0.03 according to ASTM D 6459.

7) Vegetation Establishment of 400% minimum according to ASTM D 7322.

8) Water Holding Capacity 600% minimum according to ASTM D 7367.

3. Mechanically-Bonded Fiber Matrix.

~~**a.** Long-strand wood fibers and crimped, interlocking synthetic fibers.~~

~~**b.** Upon curing (2 hours) forms a continuous, 100% coverage, flexible, absorbent, porous, erosion-resistant blanket that encourages seed germination.~~

a ~~**c.**~~ Manufactured to be applied with standard hydraulic mulching equipment and dyed green to facilitate visual metering during application.

~~**d.** Contains no growth or germination inhibiting factors.~~

~~**e.** Physical Properties:~~

~~**1) Virgin Wood Fibers:** 73% minimum.~~

~~**2) Crimped, Interlocking Synthetic Fibers:** 5% ±1%.~~

~~**3) Tackifier:** 10% ±1%.~~

~~**4) Moisture Content:** 12% ±3%.~~

~~**5) Minimum Water-Holding Capacity:** 1.2 gallons per pound.~~

~~**6) pH:** 4.8 minimum.~~

b ~~**f.**~~ All components pre-packaged by manufacturer to ensure material performance and compliance. Field mixing of additives or any components will not be allowed.

c ~~**g.**~~ ~~Other products not meeting requirements in Article 4169.07, B, 3, e, may be approved if they m~~ Meet the following requirements:

1) Contain non-toxic tackifiers that upon drying become insoluble and non-dispersible to eliminate direct raindrop impact on soil according to ASTM D 7101 and EPA 2021.0-1.

2) Contain no germination or growth inhibiting factors and do not form a water-resistant crust that can inhibit plant growth.
3) Hydraulic mulch that is completely photo-degradable or biodegradable.
4) Contain a minimum 90% organic material according to ASTM D 2974.
5) Have a rainfall event (R-factor) of 175 < R according to ASTM D 6459.
6) Have a cover factor of C ≤ 0.01 according to ASTM D 6459.
7) Vegetation Establishment of 500% minimum according to ASTM D 7322.
8) Water Holding Capacity of 700% minimum according to ASTM D 7367.

4169.10, A

Replace the Article:

A. Wire Staples.
Meet the following requirements for wire staples ~~for holding special ditch control wood excelsior mat and special ditch control jute mesh over sod~~:

1. U-shaped wire staples.

2. Each leg a minimum of 6 inches long for special ditch control and slope protection and 10 inches long for turf reinforcement mat. In sandy soil conditions the Engineer may require the length of each leg to be a minimum of 12 inches.

3. No. 11 diameter wire.

4. Staples of sufficient hardness to facilitate installation without bending.

Reason for Revision:

1) Remove physical properties requirements so that hydraulic mulch approval is based primarily on performance.
2) Add requirement for TRM staples to be 10 inches minimum.

New Bid Item Required (X one)	**Yes**	**No** x
Bid Item Modification Required (X one)	**Yes**	**No** x
Bid Item Obsoletion Required (X one)	**Yes**	**No** x
Comments:		
County or City Comments:		
Industry Comments:		

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Greg Mulder / Kyle Frame	**Office:** Construction and Materials	**Item 9**
Submittal Date: 9/21/16	**Proposed Effective Date:** April 2017	
Article No.: 4196.01, B, 6 **Title:** Bridge Abutment Backfill Fabric	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2016	**Effective Date:** 4/18/2017

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: The Office of Bridges and Structures asked if the fabric would still serve its purpose if there is no maximum flow rate to slow the flow of water through the abutment backfill. The Office of Construction and Materials indicated that the maximum apparent opening size should still limit the flow of water through the fabric.

Specification Section Recommended Text:

4196.01, B, 6, Bridge Abutment Backfill Fabric.

Replace Table 4196.01-6:

Table 4196.01-6: Fabric for use in bridge abutment backfill

Property	Value	Test Method
Tensile Strength (at 5% Strain), minimum	1356 lbs/ft	ASTM D 4595
Apparent opening size (AOS), maximum	US Sieve No. 40	ASTM D 4751
UV resistance (at 500 hours)	70% retained strength	ASTM D 4355
Flow Rate, ~~maximum~~ minimum	~~20~~ 10 gal./min./ft^2	ASTM D 4491

Comments:

Change Flow Rate value.

6. Bridge Abutment Backfill Fabric.

Use engineering fabric having properties listed in Table 4196.01-6.

Table 4196.01-6: Fabric for use in bridge abutment backfill

Property	Value	Test Method
Tensile Strength (at 5% Strain), minimum	1356 lbs/ft	ASTM D 4595
Apparent opening size (AOS), maximum	US Sieve No. 40	ASTM D 4751
UV resistance (at 500 hours)	70% retained strength	ASTM D 4355
Flow Rate, ~~maximum~~ minimum	~~20~~ 10 gal./min./ft2	ASTM D 4491

Reason for Revision: The industry standard for recording flow rate is a minimum value in gal/min./ft^2. There are no products available that meet the current criteria.

New Bid Item Required (X one)	**Yes**	**No**

Bid Item Modification Required (X one)	**Yes**	**No**
Bid Item Obsoletion Required (X one)	**Yes**	**No**
Comments:		
County or City Comments:		
Industry Comments:		

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jacqui DiGiacinto Miskimins / Wes Musgrove	**Office:** Employee Services / Contracts	**Item 10**
Submittal Date: 07/01/2016	**Proposed Effective Date:** December 20, 2016	
Article No.: **Title:**	**Other:** DS-15048, Developmental Specifications for Small Business Development Contracts	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/16/2016	**Effective Date:** 4/18/2017

Specification Committee Approved Text: See attached Developmental Specifications for Small Business Development Contracts.

Comments: The Office of Employee Services described the revisions and submitted an information sheet on the Iowa DOT Small Business Development Contracts program.

Specification Section Recommended Text: See attached Developmental Specifications for Small Business Development Contracts.

Comments:

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

Reason for Revision: Previous version of the program utilized state dollars and is now using federal dollars; therefore the federal definition of a small business must be used. The DS must be updated to reflect the definition as described by SBA.

1. Eliminate the manual process of verifying that only small business certified subcontractors are used.
2. Allow more flexibility for small business primes to select subcontractors. For example, there is currently only one small business certified traffic control contractor, which is very limiting for small business primes.
3. Small business contracts are occasionally used to satisfy a component of the Federal DBE Program. The certified small business prime will still be required to self-perform at least 30% of the contract. Federal requirements, when applicable, will still be satisfied.

New Bid Item Required (X one)	**Yes**	**No** X
Bid Item Modification Required (X one)	**Yes**	**No** X
Bid Item Obsoletion Required (X one)	**Yes**	**No** X

Comments:

County or City Comments:

Industry Comments:

DS-15048
(Replaces DS-15045)

DEVELOPMENTAL SPECIFICATIONS
FOR
SMALL BUSINESS DEVELOPMENT CONTRACTS

Effective Date
December 20, 2016

THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE DEVELOPMENTAL SPECIFICATIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

15048.01 DESCRIPTION.
The intent of this specification is for the Department to comply with ~~Iowa Code 314.14~~ 49 CFR 26.39 by ~~providing contracts where only small businesses compete against each other, and not against large established contractors~~ fostering small business participation.

15048.02 DEFINITIONS.

Certified Small Business Contractors (CSBC) – A contractor who has been recognized as meeting the requirements of a Small Business contractor by the Iowa DOT's Office of Employee Services - Civil Rights Section.

Prequalification – Submittal of a Contractors Financial-Equipment-Experience (FEE) Statement as described in Article 1102.01 of the Standard Specifications

Small Business – A firm which meets the requirement of ~~Iowa Code 314.14 which defines a *"Small business"* as any enterprise which is operated for profit, under a single management, and which has either fewer than twenty employees or an annual gross income of less than four million dollars computed as the average of the three preceding fiscal years~~ US Small Business Administration (SBA) regulations at 13 CFR Part 121, as amended. Size standards for each applicant shall be determined by identifying the firm's primary area(s) of work, locating the related North American Industry Classification System (NAICS) code(s) and applying the corresponding SBA size standard.

Small Business Certification – A document completed by a small business and submitted to the Iowa DOT's Office of Employee Services - Civil Rights Section certifying the firm complies with the size requirements of the ~~Iowa Code 314.14 Small Business requirements~~ SBA regulations at 13 CFR Part 121, as amended. The Department may require the small business to provide additional proof of eligibility to verify the requirements of ~~Iowa Code 314.14~~ the SBA definition of a small business are not exceeded.

Targeted Small Business (TSB) – Iowa Code 15.102 paragraph 7a defines a *"Targeted small business"* as a small business which is 51% or more owned, operated, and actively managed by one or more women, minority persons, or persons with a disability.

TSB Bond Waiver – Iowa Code 12.44 requires agencies of state government to waive the requirement of satisfaction, performance, surety, or bid bonds for targeted small businesses which are able to

demonstrate the inability of securing such a bond because of a lack of experience, lack of net worth, or lack of capital. This waiver will not apply to businesses with a record of repeated failure of substantial performance or material breach of contract in prior circumstances. The waiver will only be applied to a project or individual transaction amounting to fifty thousand dollars or less, notwithstanding Iowa Code 573.2. In order to qualify, the TSB shall provide written evidence to the Department of inspections and appeals that the bond would otherwise be denied the business. The granting of the waiver will in no way relieve the business from its contractual obligations and will not preclude the Department from pursuing any remedies under law upon default or breach of contract. The Department of inspections and appeals will certify TSBs for eligibility and participation in this program and will make this information available to other state agencies.

15048.03 BIDDING FOR CONTRACTS.

A. Only firms designated as approved Certified Small Business Contractors (CSBCs) by the Department will be allowed to bid on proposals designated for Small Business Contractors. A CSBC wishing to bid on a proposal designated for Small Business Contractors shall submit a written request to bid using the standard Iowa DOT procedures to be approved to bid on a proposal. The Department will give either written approval or denial of each request. Prequalification by the Department is not required, but the Department may require a CSBC to provide references or examples of similar types of work in order to be approved for bidding on individual proposals.

B. Prior to execution of a contract, the CSBC will be required to provide:

1. A Certificate of Insurance (as required by Article 1103.04 of the Standard Specifications) and

2. For contracts exceeding $25,000, either a Performance Bond (as required by Article 1103.05 of the Standard Specifications) or a TSB Bond Waiver.

C. A Traffic Control Technician according to Article 2528.01, C, 1, of the Standard Specifications is not required for this contract.

15048.04 CONSTRUCTION OF THE WORK.

A. Article 1108.01 of the Standard Specifications allows a contractor to subcontract up to 70% of the contract amount. ~~On contracts designated for CSBCs the Contractor may subcontract 70% of the contract amount, but this work shall only be subcontracted to another CSBC.~~

B. While the Department recognizes that a small business may not have all the equipment and resources of larger contractors, all requirements of the contract documents shall apply to the CSBC.

15048.05 PAYMENT FOR WORK.
Payment for work will be according to Article 1109.05 of the Standard Specifications.

Iowa DOT Small Business Development Contracts

Small Business Development Contracts

The Iowa Department of Transportation recognizes the benefits of having many contractors and suppliers available to perform work on highway construction projects.

Small Business – A firm that meets the requirements of a Small Business as defined by U.S. Small Business Administration (SBA) regulations at 13 CFR Part 121, as amended. Size standards for each applicant shall be determined by identifying the firm's primary area(s) of work, locating the related North American Industry Classification System (NAICS) code(s) and applying the corresponding SBA size standard.

Developmental Specifications for Small Business Development Contracts

DS-15045 provides a Description of the program, definitions, prequalification and necessary information to assist the Small Business Contractor in working with the Iowa Department of Transportation.

Small Business Certification Form 650064

A certification form must be completed and returned to the Office of Employee Services Civil Rights team by noon the day before the letting and allows the contractor to self-certify that their company meets the requirements of a Small Business as defined by U.S. Small Business Administration (SBA) regulations at 13 CFR Part 121, as amended.

Small Business Development Contracts Funding and Size Limits

$1.2M off the top of MP, 3R and 4R will fund the Small Business Development Contracts and each district will have $200K to work up into projects.

TSB Bond Waiver

Iowa Code 12.44 requires agencies of state government to waive the requirement of satisfaction, performance, surety, or bid bonds for targeted small businesses which are able to demonstrate the inability of securing such a bond because of a lack of experience, lack of net worth, or lack of capital. This waiver will not apply to businesses with a record of repeated failure of substantial performance or material breach of contract in prior circumstances. The waiver will only be applied to a project or individual transaction amounting to fifty thousand dollars or less, notwithstanding Iowa Code section 573.2. In order to qualify, the TSB shall provide written evidence to the Department of inspections and appeals that the bond would otherwise be denied the business. The granting of the waiver will in no way relieve the business from its contractual obligations and will not preclude the Department from pursuing any remedies under law upon default or breach of contract. The Department of inspections and appeals will certify TSBs for eligibility and participation in this program and will make this information available to other state agencies.

Iowa DOT Small Business Development Contracts

Bidding for Contracts

Only firms designated as approved Certified Small Business Contractors (CSBCs) by the Department will be allowed to bid on proposals designated for Small Business Contractors. Prequalification by the Department is not required, but the Department may require a CSBC to provide references or examples of similar types of work in order to be approved for bidding on individual proposals.

Prior to execution of a contract, the CSBC will be required to provide:

1. A Certificate of Insurance (as required by Article 1103.04 of the Standard Specifications) and
2. Either a Performance Bond (as required by Article 1103.25 of the Standard Specifications) or a TSB Bond Waiver.

Construction of the Work

Article 1108.01 of the Standard Specifications allows a contractor to subcontract up to 70% of the contract amount.

Payment for the Work

Payment for work will be according to Article 1109.05 of the Standard Specifications.

Form 510130 (08-15)

IOWA DOT

SPECIFICATION REVISION SUBMITTAL FORM

Submitted by: Jeff Devries	**Office:** District 1	**Item 11**
Submittal Date: 2016.09.26	**Proposed Effective Date:** April 2017	
Article No.: Section 4134 **Title:** Floodable Backfill Material	**Other:**	

Specification Committee Action: Approved as recommended.

Deferred:	**Not Approved:**	**Approved Date:** 10/13/2016	**Effective Date:** 4/18/2017

Specification Committee Approved Text: See Specification Section Recommended Text.

Comments: None.

Specification Section Recommended Text:

4134.02, Gradation.

Replace the Article:

~~**A.** For natural sand and gravel use Gradation No. 35 of the Aggregate Gradation Table, Article 4109.02.~~

~~**B.** For natural sand use Gradation No. 1 or Gradation No. 36 of the Aggregate Gradation Table, Article 4109.02.~~

Meet requirements for Gradation No. 1, Gradation No. 35, or Gradation No. 36 of the Aggregate Gradation Table, Article 4109.02.

Comments: The existing language shown was previously approved at the August Specification Committee Meeting. One aggregate producer had some confusion with the approved language. The Geology Section maintains the previously approved language is clear and does not need to be revised again.

Member's Requested Change:

4134.02 GRADATION.

~~**A.** For natural sand and gravel use Gradation No. 1 or Gradation No. 35 of the Aggregate Gradation Table, Article 4109.02.~~

~~**B.** For natural sand use Gradation No. 36 of the Aggregate Gradation Table, Article 4109.02.~~

Meet the requirements for Gradation No. 1, Gradation No. 35, or Gradation No. 36 of the Aggregate Gradation Table, Article 4109.02.

Reason for Revision: Not a specification change but clarification. It became confusing to some after section B was added and section A was not changed.

New Bid Item Required (X one)	**Yes**	**No** X
Bid Item Modification Required (X one)	**Yes**	**No** X
Bid Item Obsoletion Required (X one)	**Yes**	**No** X

Comments:

County or City Comments:
Industry Comments: