



**SUPPLEMENTAL SPECIFICATIONS
FOR
REVISIONS TO THE STANDARD SPECIFICATIONS FOR
HIGHWAY AND BRIDGE CONSTRUCTION, SERIES 2009**

**Effective Date
January 20, 2009**

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

Section 1102

1102.04, Contents of Proposal Forms.

Add as the second paragraph of item C:

Do not use composite crews for bridge and culvert work. Pay applicable prevailing wage rate for the classification which the employee is performing work.

1102.17, E, 4, Contractors with History of Utilizing DBEs.

Delete the second sentence of the second paragraph:

~~Contractors who have used the same DBE firm for over 50% of their subcontract dollars with DBE firms will not be considered as having a history of utilizing DBEs.~~

Section 1108

1108.02, Prosecution of Work.

Add the article:

M. Notification of Traffic Impacts.

The Contractor shall provide the Engineer with 10 calendar days notice before commencing or resuming work on a Primary or Interstate road or bridge open to traffic. This notification is needed to suspend the issuance of permits for oversized loads when width or vertical clearance restrictions occur during construction.

Section 2106

2106.02, B, PVC Casing.

Replace the article:

Apply Section 4149.

Section 2111

2111.03, A, Equipment.

Replace item 2:

2. Apply Article 2001.05, Paragraphs B, C, D, and F, to compaction equipment, except that other types of equipment may be used provided it is demonstrated they will consistently produce the required compaction.

2111.05, BASIS OF PAYMENT.

Replace item E:

- E. When adjustments to profile grades cannot be made, fill required for preparation of subgrade at locations other than structures or existing pavements will be paid for according to Article 2102.05, or, if no contract price is provided, Article 1109.03, B.

Section 2122

2122.03, D, Finishing.

Replace the article:

After completion of the paved shoulder, place the granular fillet as shown in the contract documents and according to Section 2121. Finish the foreslope according to Article 2123.03, C.

Section 2214

2214.03, C, Blading and Shaping of Shoulder Material

Delete item 3:

- ~~3. Place barricades, as described in Article 1107.09, B, 5, along the windrowed material.~~

Section 2301

2301.03, E, 2, Placing Load Transfer Devices.

Replace item a:

- a. Load transfer devices may be required in the contract documents. Accurately place these assemblies as shown. To prevent their movement during subsequent concrete paving operations, securely stake or fasten to the base to line and grade. Do not use mechanical dowel bar inserters.

2301.03, P, Sealing Joints.

Replace item 7:

7. The Engineer may limit the wheel loads and axle loads of equipment operating on the pavement during preparation, cleaning, and sealing operations, if prior to the age and strength specified in Article 2301.03, U. Additional tests to determine the modulus of rupture may be required.

Section 2403

2403.03, E, Protection and Curing of Concrete.

Replace item 1:

1. Protect concrete which has been placed from external stress between the time it ceases to be plastic and the time it may be stressed, as provided in Article 2403.03, N.

2403.03, H, Bonding Construction Joints.

Replace item 1:

1. When concrete placement in any section of a structure must be interrupted, locate the construction joint as specified in Article 2403.03, O. Leave the surface of the concrete in horizontal joints rough (except in the area near the form) to increase the bond with concrete that is to be placed later. Finish the top surface of the concrete adjacent to the forms to a horizontal 3/4 inch (20 mm) bevel strip.

2403.03, M, 2, Forms Which Shall Remain in Place 5 Calendar Days or Longer.

Replace item a:

- a. Except when form removal is permitted in less than 5 calendar days, forms may be removed as soon after 5 calendar days as the concrete has attained the strength required in Article 2403.03, N, 2. When Maturity Method (according to Materials I.M. 383) for strength determination is used, the flexural strength of 550 psi (3.8 MPa) will be required. The days of age will depend on the Maturity Curve for the concrete mix used.

Section 2416

2416.03, Construction

Add new article:

- E. Trenchless Construction.**
Apply Section 2553.

2416.04, Method of Measurement.

Add new article:

- H. Trenchless: Measurement for each type and size of pipe installed by trenchless methods will be in linear feet (meters) along the centerline of the pipe.**

2416.05, Basis of Payment.

Add new article:

H. Trenchless:

1. Payment will be made at the contract unit price per linear foot (meter) for each type and size of pipe.
2. Payment is full compensation for:
 - Furnishing and installing pipe,
 - Trenchless installation materials and equipment,
 - Pit excavation, dewatering, and placing backfill material, and
 - Pipe connections.

Section 2428

2428.04, A, Bumps.

Replace item 1:

1. Correct all bumps exceeding 0.5 inch (12.7 mm) within a 25 foot (7.6 m) span, as indicated on the profilogram, except as stated in Article 2428.04, C.

2428.04, B, Dips.

Replace item 1:

1. Correct all dips exceeding 0.5 inch (12.7 mm) in a 25 foot (7.6 m) span, as indicated on the profilogram, only when the Engineer requires, except as stated in Article 2428.04, C. The Contractor will be assessed a price adjustment of \$900 for each dip exceeding 0.5 inch (12.7 mm) that is not corrected, except as stated in Article 2428.04, C.

Section 2429

2429.03, B, 1, Welding.

Replace the first bulleted item:

- Comply with Article 2408.03, B.

Section 2432

2432.02, B, 3, a, Horizontal and Vertical Joints.

Replace the article:

Cover horizontal and vertical joints between panels with a polyester fabric that meets requirements of Article 4196.01, B, 3, and is acceptable to the MSE wall company. Obtain the Engineer's approval for adhesives used to temporarily attach the fabric to the back of the facing panels.

Section 2434

2434.04, METHOD OF MEASUREMENT

Replace the article:

The quantity of Disc Bearing Assemblies (each) will be shown in the contract documents.

Section 2435

2435.03, F, 4, c, Exfiltration Test

Replace item 8:

- 8) Determine the allowable drop in water level by using the equation given in Article 2504.03, L, 4, b, 3, c. After 1 hour, measure the drop in water level.

Section 2501

2501.03, A, 10, b, 1, Wave Equation Analysis.

Replace item d:

- d) Equipment meeting the values in Tables 2501.03-1 and 2501.03-2 in the Appendix will be acceptable for wave equation analysis.

Section 2508

2502.03, C, Longitudinal Subdrains.

Replace item 2:

2. Install outlets as shown in the contract documents at approximately 500 foot (150 m) intervals. Provide additional outlets at the low points of vertical sag curves. The Engineer may adjust outlet location. Cover the outlet end of each subdrain with the specific outlet covering. Cap the blind end with a fitting recommended by the manufacturer.

2502.03, C, 7, a, 24 inch (0.6 m) Depth Subdrain Trench.

Replace item 1:

- 1) Place aggregate backfill material in one lift above the subdrain pipe.

2502.03, C, 7, b, 36 inch (0.9 m) Depth Subdrain Trench.

Replace item 1:

- 1) Place aggregate backfill material in one lift above the subdrain pipe.

2508.01, B, 1, General.

Replace item a:

- a. Apply Article 2508.01, B, only to structures previously painted with lead based paints and for structures with Scratch Tests indicating a hazardous waste is expected to be generated during the project. Scratch tests are provided elsewhere in the contract documents for information per Iowa Code Section 89B.8, Subsection 1.

Section 2514

2514.05, C, Shoulders.

Replace the article:

According to Article 2302.05, D.

Section 2525

2525.02, H, 1, General.

Replace the article:

Meet the requirements of Article 2523.03, N and Article 4185.10.

2525.03, H, 3, Hardware.

Replace the third sentence:

All hardware shall be steel, hot-dipped galvanized according to ASTM A 153, Class C, or ASTM B 695, Class 50, or shall have an electro deposited coating of the same coating thickness, and so designed for this purpose.

2525.03, H, 3, b, Nuts.

Delete the second bulleted item:

- ~~Galvanizing according to ASTM A 153, Class C, or ASTM B 695, Class 50.~~

Section 2528

2528.05, E, Temporary Crash Cushions.

Replace the article:

Article 2551.05, A, applies.

Section 2532

2532.03, b, 3, Bridge Deck.

Replace item a:

- a. Grind and longitudinally groove the entire surface of the bridge deck according to Article 2412.03, D, 4, a.

Section 2538

2538.03, D, 7, a, Septic Tanks.

Replace item 2:

- 2) Remove septic tanks and place backfill in the excavation according to Article 2538.03, D, 9. Removed septic tanks become property of the Contractor. Transport off the project.

2538.03, D, 7, b, Cisterns.

Replace the article:

Remove all cisterns and place backfill in the excavation according to Article 2538.03, D, 9. Cisterns will be considered demolition debris. Remove from the site.

Section 2550

2550.05, METHOD OF MEASUREMENT AND BASIS OF PAYMENT.

Replace the article:

All costs associated with furnishing, installing, operating, maintaining, moving, and removing night work lighting and other traffic control requirements required by this specification, are incidental to the lump sum bid price for Mobilization.

Section 2551

2551.03, B, Temporary Crash Cushions.

Replace item 3:

3. When a temporary crash cushion is no longer required, remove it. The crash cushion becomes the property of the Contractor. Remove anchor bolts, if used, and fill the bolt holes with one of the non-shrink grouts listed in Materials I.M. 491.13, Appendix A.

Section 2553

2553.02, A, 2, Carrier Pipe Installed without a Casing Pipe

Add new article:

- e. **Roadway Pipe Culvert.**
Reinforced Concrete Pipe: Apply Section 4145.

2553.02, D, Backfill Material for Abandoned Tunnels.

Replace item 2:

2. **Option 2:** Flowable mortar according to Article 2506.02.

Add item 3:

3. **Option 3:** CLSM according to Article 2552.02, E, 3.

2553.02, E, 2, Special Fill Materials.

Replace item c:

- c. **Controlled Low Strength Material (CLSM):** Apply Article 2552.02, E, 3.

Section 2601

2601.03, B, 4, i, Fall Seeding.

Replace item 3:

- 3) Seeding after August 31 consists of stabilizing crop seed, hairy vetch (legume seed), and grass seed except native grass. Sow other legume seed and native grass seed the following spring as soon as possible after March 1, and before April 1, when the ground is friable from frost action, as directed by the Engineer and according to Article 2601.03, B, 4, f.

2601.03, B, 4, j, Urban Seeding.

Replace item 2:

- 2) A rotary tiller will be required for the preparation of seedbed according to Article 2601.03, B, 4, a. Prior to the application of seed, ensure the seedbed is firm, smooth, and free of any material 1 1/2 inches (40 mm) in diameter or greater including clods, rocks, and other debris. Roll the seedbed both before and after the application of seed. For rolling, use either open grid type equipment or cultipacker type equipment modified by covering with expanded metal mesh.

2601.03, G, 3, b, Fertilizer for Sod.

Replace item 3:

- 3) For both of the above applications, if the type of fertilizer is not specified, apply 13-13-13 (or equivalent) commercial fertilizer. Spread the fertilizer with a mechanical spreader which will secure a uniform rate of application. Manipulation or mixing with the soil, other than that incidental to Article 2601.03, G, 3, d, will not be required.

2601.03, G, 3, d, Finishing Sod.

Replace item 4:

- 4) After sodding and seeding, water the sod, sodbed, and disturbed areas according to Article 2601.03, G, 3, e.

2601.03, J, Preparation of Area to be Treated with Special Ditch Control, Turf Reinforcement Mat, and Slope Protection

Replace item 1:

1. Shape the ditch channel in the same manner as preparing a ditch for sod as provided in Article 2601.03, G, 3, a.

2601.03, M, 1, Wood Excelsior Mat.

Replace item e:

- e. Use staples meeting the requirements of Article 4169.10, A. Space staples as shown in the contract documents.

2601.03, Q, Watering of Special Ditch Control, Turf Reinforcement, and Slope Protection

Replace the article title:

- Q. Watering of Special Ditch Control, Turf Reinforcement Mat, and Slope Protection**

2601.04, METHOD OF MEASUREMENT.

Delete the third bulleted item of Article A:

- Pneumatic Seeding,

Replace Article D:

- D.** Special Ditch Control, Turf Reinforcement Mat, and Slope Protection: squares of 100 square feet (square meters) calculated from measurements to the nearest foot (0.1 m). Measurement of actual area covered will be used, but will not exceed an area based on the actual measured length and design width. Materials used for anchor slots, junction slots, check slots, terminal folds, lap joints, mulch, and seed and fertilizer for Special Ditch Control are incidental.

2601.05, BASIS OF PAYMENT.

Replace item 1 of Article A:

1. Contract unit price per acre to the nearest 0.1 acres (hectare to the nearest 0.1 hectares) for the following. Payment is full compensation for preparing the area and furnishing and applying each material.
 - Overseeding and Fertilizing,
 - Seeding and Fertilizing,
 - Compost
 - Native Grass Seeding,
 - Wetland Grass Seeding,
 - Wildflower Seeding,
 - Stabilizing Crop Seeding and Fertilizing, and
 - Crownvetch Seeding.

Replace item 11 of Article A:

11. When a large area is to be watered, the contract documents will include an item for watering. For the quantity of water applied to sod, Article 2601.03, G, 3, e, and to special ditch control and slope protection, Article 2601.03, Q, payment will be the predetermined contract unit price per 1000 gallons (kiloliter). When an item for watering is not included, the cost of watering is included in the amount paid for the item to be watered.

Section 4145

4145.06, I, Tongue and Groove.

Replace the article:

Ensure the tongue and groove are compatible so that when the pipe is laid, it will be possible for the contractors to comply with Article 2416.03, D, 5.

APPENDIX

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Table 2501.03-2 (Metric Units) 1176

Table 2550.02-1 1178

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Theoretical Rate of Evaporation Chart (English Units) 1192

Theoretical Rate of Evaporation Chart (Metric Units) 1193

ReNUMBER Table 2553.02-1: Class II Material:
Table 2552.02-1: Class II Material

ReNUMBER Table 2553.02-2: Class III Material:
Table 2552.02-2: Class III Material

ReNUMBER Table 2553.02-3: Class IVA Material:
Table 2552.02-3: Class IVA Material

ReNUMBER Table 2553.02-4: Class IVB Material:
Table 2552.02-41: Class IVB Material

ReNUMBER Table 2553.02-5: Class V Material:
Table 2552.02-5: Class V Material

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Replace entry:
Patches--finish
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partial depth finish 2530