HIGHWAY WORK PROPOSAL

Proposal Number: Ø 1

Wisconsin Department of Transportation
DT1502 10/2010 s.66.29(7) Wis. Stats.

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Rock	1003-10-76	WISC 2017 397	Illinois State Line – Madison Woodman Road to STH 11	IH 39
Rock	1003-10-81	WISC 2017 398	Illinois State Line – Madison Hart Road to Woodman Road	IH 39

This proposal, submitted by the undersigned bidder to the Wisconsin Department of Transportation, is in accordance with the advertised request for proposals. The bidder is to furnish and deliver all materials, and to perform all work for the improvement of the designated project in the time specified, in accordance with the appended Proposal Requirements and Conditions.

Proposal Guaranty Required, $ 1,000,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: August 8, 2017 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time May 20, 2020	
Assigned Disadvantaged Business Enterprise Goal 10 %	This contract is subject to federal oversight.

This certifies that the undersigned bidder, duly sworn, is an authorized representative of the firm named above; that the bidder has examined and carefully prepared the bid from the plans, Highway Work Proposal, and all addenda, and has checked the same in detail before submitting this proposal or bid; and that the bidder or agents, officer, or employees have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal bid.

Do not sign, notarize, or submit this Highway Work Proposal when submitting an electronic bid on the Internet.

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State Wisconsin)

(Date Commission Expires)

Notary Seal

(Bidder Signature)

(Print or Type Bidder Name)

(Bidder Title)

For Department Use Only

Type of Work Grading, base aggregate, HMA pavement, concrete pavement, concrete barrier, guardrail, Structures B-53-314/315/317/318/320/321/322, S-53-104/113/114, culvert pipe, storm sewer, boring & jacking, concrete curb and gutter, permanent signing, pavement marking, lighting and ITS.	
Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

The bidder, signing and submitting this proposal, agrees and declares as a condition thereof, to be bound by the following conditions and requirements.

If the bidder has a corporate relationship with the proposal design engineering company, the bidder declares that it did not obtain any facts, data, or other information related to this proposal from the design engineering company that was not available to all bidders.

The bidder declares that they have carefully examined the site of, and the proposal, plans, specifications and contract forms for the work contemplated, and it is assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of the specifications, special provisions and contract. It is mutually agreed that submission of a proposal shall be considered conclusive evidence that the bidder has made such examination.

The bidder submits herewith a proposal guaranty in proper form and amount payable to the party as designated in the advertisement inviting proposals, to be retained by and become the property of the owner of the work in the event the undersigned shall fail to execute the contract and contract bond and return the same to the office of the engineer within fourteen (14) days after having been notified in writing to do so; otherwise to be returned.

The bidder declares that they understand that the estimate of quantities in the attached schedule is approximate only and that the attached quantities may be greater or less in accordance with the specifications.

The bidder agrees to perform the said work, for and in consideration of the payment of the amount becoming due on account of work performed, according to the unit prices bid in the following schedule, and to accept such amounts in full payment of said work.

The bidder declares that all of the said work will be performed at their own proper cost and expense, that they will furnish all necessary materials, labor, tools, machinery, apparatus, and other means of construction in the manner provided in the applicable specifications and the approved plans for the work together with all standard and special designs that may be designed on such plans, and the special provisions in the contract of which this proposal will become a part, if and when accepted. The bidder further agrees that the applicable specifications and all plans and working drawings are made a part hereof, as fully and completely as if attached hereto.

The bidder, if awarded the contract, agrees to begin the work not later than ten (10) days after the date of written notification from the engineer to do so, unless otherwise stipulated in the special provisions.

The bidder declares that if they are awarded the contract, they will execute the contract agreement and begin and complete the work within the time named herein, and they will file a good and sufficient surety bond for the amount of the contract for performance and also for the full amount of the contract for payment.

The bidder, if awarded the contract, shall pay all claims as required by Section 779.14, Statutes of Wisconsin, and shall be subject to and discharge all liabilities for injuries pursuant to Chapter 102 of the Statutes of Wisconsin, and all acts amendatory thereto. They shall further be responsible for any damages to property or injury to persons occurring through their own negligence or that of their employees or agents, incident to the performance of work under this contract, pursuant to the Standard Specifications for Road and Bridge Construction applicable to this contract.

In connection with the performance of work under this contract, the contractor agrees to comply with all applicable state and federal statutes relating to non-discrimination in employment. No otherwise qualified person shall be excluded from employment or otherwise be subject to discrimination in employment in any manner on the basis of age, race, religion, color, gender, national origin or ancestry, disability, arrest or conviction record (in keeping with s.111.32), sexual orientation, marital status, membership in the military reserve, honesty testing, genetic testing, and outside use of lawful products. This provision shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. The contractor further agrees to ensure equal opportunity in employment to all applicants and employees and to take affirmative action to attain a representative workforce.

The contractor agrees to post notices and posters setting forth the provisions of the nondiscrimination clause, in a conspicuous and easily accessible place, available for employees and applicants for employment.

If a state public official (section 19.42, Stats.) or an organization in which a state public official holds at least a 10% interest is a party to this agreement, this contract is voidable by the state unless appropriate disclosure is made to the State of Wisconsin Ethics Board.

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

(1) Obtain bidding proposals as specified in section 102 of the standard specifications prior to 11:45 AM of the last business day preceding the letting. Submit bidding proposals using one of the following methods:

1. Electronic bid on the internet.
2. Electronic bid on a printout with accompanying diskette or CD ROM.
3. Paper bid under a waiver of the electronic submittal requirements.

(2) Bids submitted on a printout with accompanying diskette or CD ROM or paper bids submitted under a waiver of the electronic submittal requirements govern over bids submitted on the internet.

(3) The department will provide bidding information through the department's web site at:
http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

The contractor is responsible for reviewing this web site for general notices as well as information regarding proposals in each letting. The department will also post special notices of all addenda to each proposal through this web site no later than 4:00 P.M. local time on the Thursday before the letting. Check the department's web site after 5:00 P.M. local time on the Thursday before the letting to ensure all addenda have been accounted for before preparing the bid. When bidding using methods 1 and 2 above, check the Bid Express™ on-line bidding exchange at http://www.bidx.com/ after 5:00 P.M. local time on the Thursday before the letting to ensure that the latest schedule of items Expedite file (*.ebs or *.00x) is used to submit the final bid.

(4) Interested parties can subscribe to the Bid Express™ on-line bidding exchange by following the instructions provided at the www.bidx.com web site or by contacting:

Info Tech Inc.
5700 SW 34th Street, Suite 1235
Gainesville, FL 32608-5371
email: mailto:customer.support@bidx.com

(5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.

(6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:
http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, Room 601, 4802 Sheboygan Avenue, Madison, WI, during regular business hours.

(7) Addenda posted after 5:00 PM on the Thursday before the letting will be emailed to the eligible bidders for that proposal. All eligible bidders shall acknowledge receipt of the addenda whether they are bidding on the proposal or not. Not acknowledging receipt may jeopardize the awarding of the project.

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

1. Have a properly executed annual bid bond on file with the department.
2. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.

(2) In lieu of preparing, delivering, and submitting the proposal as specified in 102.6 and 102.9 of the standard specifications, submit the proposal on the internet as follows:

1. Download the latest schedule of items reflecting all addenda from the Bid Express web site.
2. Use Expedite™ software to enter a unit price for every item in the schedule of items.
3. Submit the bid according to the requirements of Expedite™ software and the Bid Express™ web site. Do not submit a bid on a printout with accompanying diskette or CD ROM or a paper bid. If the bidder does submit a bid on a printout with accompanying diskette or a paper bid in addition to the internet submittal, the department will disregard the internet bid.
4. Submit the bid before the hour and date the Notice to Contractors designates.
5. Do not sign, notarize, and return the bidding proposal described in 102.2 of the standard specifications.

(3) The department will not consider the bid accepted until the hour and date the Notice to Contractors designates.

B.2 On a Printout with Accompanying Diskette or CD ROM

(1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at:

http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

Use Expedite ™ software to prepare and print the schedule of items. Provide a valid amount for all price fields. Follow instructions and review the help screens provided on the Bid Express™ web site to assure that the schedule of items is prepared properly.

(2) Staple an 8 1/2 by 11 inch printout of the Expedite™ generated schedule of items to the other proposal documents submitted to the department as a part of the bidder's sealed bid. As a separate submittal not in the sealed bid envelop but due at the same time and place as the sealed bid, also provide the Expedite™ generated schedule of items on a 3 1/2 inch computer diskette or CD ROM. Label each diskette or CD ROM with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette or CD ROM as indicated in the following example:

Bidder

Name

BN00

Proposals: 1, 12, 14, & 22

(3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette or CD ROM. Include only submitted proposals with no incomplete or other files on the diskette or CD ROM.

(4) The bidder-submitted printout of the Expedite™ generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette or CD ROM, the department will analyze the bid using the printout information.

(5) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:

1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.
3. The diskette or CD ROM is not submitted at the time and place the department designates.

C Waiver of Electronic Submittal

(1) The bidder may request a waiver of the electronic submittal requirements. Submit a written request for a waiver in lieu of bids submitted on the internet or on a printout with accompanying diskette or CD ROM. Use the waiver that was included with the paper bid document sent to the bidder or type up a waiver on the bidder's letterhead. The department will waive the electronic submittal requirements for a bidding entity (individual, partnership, joint venture, corporation, or limited liability company) for up to 4 individual proposals in a calendar year. The department may allow additional waivers for equipment malfunctions.

(2) Submit a schedule of items on paper conforming to section 102 of the standard specifications. The department charges the bidder a $75 administrative fee per proposal, payable at the time and place the department designates for receiving bids, to cover the costs of data entry. The department will accept a check or money order payable to: "Wisconsin, Dept. of Transportation."

(3) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:

1. The bidder fails to provide the written request for waiver of the electronic submittal requirements.
2. The bidder fails to pay the $75 administrative fee before the time the department designates for the opening of bids unless the bidder requests on the waiver that they be billed for the $75.
3. The bidder exceeds 4 waivers of electronic submittal requirements within a calendar year.

(4) In addition to the reasons specified in section 102 of the standard specifications, the department may refuse to issue bidding proposals for future contracts to a bidding entity that owes the department administrative fees for a waiver of electronic submittal requirements.

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

Proposal Number	Project Number	Letting Date
Name of Principal		
Name of Surety	State in Which Surety is Organized	

We, the above-named Principal and the above-named Surety, are held and firmly bound unto the State of Wisconsin in the sum equal to the Proposal Guaranty for the total bid submitted for the payment to be made; we jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns. The condition of this obligation is that the Principal has submitted a bid proposal to the State of Wisconsin acting through the Department of Transportation for the improvement designated by the Proposal Number and Letting Date indicated above.

If the Principal is awarded the contract and, within the time and manner required by law after the prescribed forms are presented for signature, enters into a written contract in accordance with the bid, and files the bond with the Department of Transportation to guarantee faithful performance and payment for labor and materials, as required by law, or if the Department of Transportation shall reject all bids for the work described, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. In the event of failure of the Principal to enter into the contract or give the specified bond, the Principal shall pay to the Department of Transportation **within 10 business days of demand** a total equal to the Proposal Guaranty as liquidated damages; the liability of the Surety continues for the full amount of the obligation as stated until the obligation is paid in full.

The Surety, for value received, agrees that the obligations of it and its bond shall not be impaired or affected by any extension of time within which the Department of Transportation may accept the bid; and the Surety does waive notice of any such extension.

IN WITNESS, the Principal and Surety have agreed and have signed by their proper officers and have caused their corporate seals to be affixed this date: **(DATE MUST BE ENTERED)**

PRINCIPAL

(Company Name) **(Affix Corporate Seal)**

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Name of Surety) **(Affix Seal)**

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

On the above date, this instrument was acknowledged before me by the named person(s).

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State of Wisconsin)

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

On the above date, this instrument was acknowledged before me by the named person(s).

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State of Wisconsin)

(Date Commission Expires)

Notary Seal

IMPORTANT: A certified copy of Power of Attorney of the signatory agent must be attached to the bid bond.

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

Time Period Valid (From/To)
Name of Surety
Name of Contractor
Certificate Holder Wisconsin Department of Transportation

This is to certify that an annual bid bond issued by the above-named Surety is currently on file with the Wisconsin Department of Transportation.

This certificate is issued as a matter of information and conveys no rights upon the certificate holder and does not amend, extend or alter the coverage of the annual bid bond.

Cancellation: Should the above policy be cancelled before the expiration date, the issuing surety will give thirty (30) days written notice to the certificate holder indicated above.

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

Section 66.0901(7), Wisconsin Statutes, provides that as a part of the proposal, the bidder also shall submit a list of the subcontractors the bidder proposes to contract with and the class of work to be performed by each. In order to qualify for inclusion in the bidder's list a subcontractor shall first submit a bid in writing, to the general contractor at least 48 hours prior to the time of the bid closing. The list may not be added to or altered without the written consent of the municipality. A proposal of a bidder is not invalid if any subcontractor and the class of work to be performed by the subcontractor has been omitted from a proposal; the omission shall be considered inadvertent or the bidder will perform the work personally.

No subcontract, whether listed herein or later proposed, may be entered into without the written consent of the Engineer as provided in Subsection 108.1 of the Standard Specifications.

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS - PRIMARY COVERED TRANSACTIONS

Instructions for Certification

1. By signing and submitting this proposal, the prospective contractor is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department determined to enter into this transaction. If it is later determined that the contractor knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government the department may terminate this transaction for cause or default.

4. The prospective contractor shall provide immediate written notice to the department to whom this proposal is submitted if at any time the prospective contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department to which this proposal is being submitted for assistance in obtaining a copy of those regulations.

6. The prospective contractor agrees by submitting this proposal that, should this contract be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department entering into this transaction.

7. The prospective contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," which is included as an addendum to PR-1273 - "Required Contract Provisions Federal Aid Construction Contracts," without

modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

(1) The prospective contractor certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offense enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective contractor is unable to certify to any of the statements in this certification, such prospective contractor shall attach an explanation to this proposal.

Special Provisions

Table of Contents

Article	Description	Page #
1.	General.	5
2.	Scope of Work.	5
3.	Prosecution and Progress.	5
4.	Lane Rental Fee Assessment.	13
5.	Traffic.	14
6.	Holiday Work Restrictions.	27
7.	Utilities.	29
8.	Railroad Insurance and Coordination.	30
9.	Union Pacific Railroad Company Requirements.	35
10.	Other Contracts.	36
11.	Construction Over or Adjacent to Navigable Waters.	37
12.	Erosion Control.	37
13.	Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.	38
14.	Erosion Control Structures.	38
15.	Design Model Data.	38
16.	Contract Award and Execution.	39
17.	Timely Decision Making Manual.	45
18.	Notice to Contractor – Construction Safety.	46
19.	Notice to Contractor – Revisions to Traffic Control Plans.	50
20.	Notice to Contractor – New or Revised Temporary Construction Access to I-39/90.	51
21.	Notice to Contractor, Notification of Demolition and/or Renovation No Asbestos Found.	52
22.	Notice to Contractor – Airport Operating Restrictions – Site Specific.	55
23.	Optimized Aggregate Gradation and Concrete Mixtures.	59
24.	Clearing and Grubbing, Items 201.0105, 201.0120, 201.0205, and 201.0220.	63
25.	Debris Containment Structure B-53-36, Item 203.0225.S.005; B-53-37, Item 203.0225.S.006.	65
26.	Removing Old Structure Over Waterway Station 565+53.42, Item 203.0500.S.003.	66
27.	Removing Old Structure Over Waterway With Minimal Debris Station 369+90.72 ‘SB’, Item 203.0600.S.001; Station 369+90.72 ‘NB’, Item 203.0600.S.002.	67
28.	Abandoning Sewer, Item 204.0291.S.	68
29.	Removing Apron Endwalls, Item 204.9060.S.005.	68
30.	Removing Cable Guard, Item 204.9090.S.006.	69
31.	Removing Temporary Shoring Left In Place By Others, Item 204.9090.S.007.	69
32.	Apron Endwalls for Culvert Pipe Salvaged.	70
33.	Roadway Excavation.	70
34.	Borrow.	70
35.	Select Borrow, Item 208.1100.	71

36. Backfill Coarse Aggregate Size No. 1, Item 209.0300.S.001; Backfill Coarse Aggregate Size No. 2, Item 209.0300.S.002 72
37. QMP Base Aggregate. 72
38. Base Aggregate Dense 3/4 –Inch, item 305.0110. 81
39. Base Aggregate Dense 1 1/4-Inch, Item 305.0120. 81
40. Rout and Seal, Item 415.6000.S. 81
41. HMA Pavement Modification. 83
42. QMP HMA Pavement Nuclear Density. 84
43. Aggregates For Concrete Pavements. 90
44. Concrete Pavement. 92
45. High Performance Dowel Bars Special. 92
46. Ice Hot Weather Concreting, Item 501.1000.S. 92
47. Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S. 93
48. Cover Plates Temporary, Item 611.8120.S. 96
49. Fence Safety, Item 616.0700.S. 97
50. Nighttime Work Lighting-Stationary. 98
51. Blue Specific Service Signs. 99
52. Salvaged Topsoil. 100
53. Traffic Control Surveillance and Maintenance 1003-10-81, Item 643.0200.S.001; 1003-10-76, Item 643.0200.S.002. 100
54. Traffic Control Signs, Item 643.0900. 102
55. Traffic Control. 102
56. Removing Pavement Markings Water Blasting, Item 646.0690.S. 103
57. Pavement Marking Late Season, Item 646.0900.S. 104
58. Pavement Marking Grooved Epoxy 4-Inch, Item 646.0107.S. 105
59. Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch, Item 646.0841.S; 8-Inch, Item 646.0843.S. 106
60. General Requirements for Electrical Work. 109
61. Intelligent Transportation Systems (ITS) – Control of Materials. 109
62. Intelligent Transportation Systems – General Requirements. 111
63. Intelligent Transportation Systems – Conduit. 116
64. Install Conduit Into Existing Item, Item 652.0700.S. 116
65. Lighting Units Walkway, 659.0700; Luminaires Utility LED-A, 659.1115. 117
66. Field System Integrator, Item 670.0100 and ITS Documentation, Item 670.0200. 117
67. Install Ethernet Switch, Item 675.0400.S. 117
68. Concrete Pavement Flexural Strength. 118
69. Roadway Embankment, Item SPV.0035.001. 121
70. High Performance Concrete (HPC) Masonry Structures, Item SPV.0035.740. 122
71. Baseline CPM Progress Schedule, Item SPV.0060.001; CPM Progress Schedule Updates and Accepted Revisions, Item SPV.0060.002. 128
72. Emergency Access Gate, Item SPV.0060.003. 139
73. Access Gate 6-Foot, Item SPV.0060.004. 140
74. Fixed Message Sign Portable Support, Item SPV.0060.005. 141
75. Test Pits, Item SPV.0060.008. 141
76. Removing Billboard Sign and Sign Structure, Item SPV.0060.009. 143
77. Covering Storm Sewer, Item SPV.0060.010. 143

78. Concrete Cutoff Wall, Item SPV.0060.011. 144
79. Manhole Structure 170B, Item SPV.0060.012. 145
80. Utility Line Opening, Item SPV.0060.014. 145
81. Barrier Wall Delineation, Item SPV.0060.015. 146
82. Cover Plates, Item SPV.0060.020..... 147
83. Reinforced Concrete Endwalls and Grates, 24x38-Inch Special, Item SPV.0060.025; 29x45-Inch Special, Item SPV.0060.026; 38x60-Inch, Item SPV.0060.027; 48x76-Inch, Item SPV.0060.028. 147
84. Closed Inlet Cover, Item SPV.0060.040..... 148
85. Clay Anti-Seepage Collar, Item SPV.0060.030..... 149
86. Temporary Concrete Barrier Gate, Item SPV.0060.031; Reinstall Temporary Concrete Barrier Gate, Item SPV.0060.032..... 152
87. Salvage and Reinstall Light Pole, Item SPV.0060.350. 153
88. Fiber Tracer Marker Post, Item SPV.0060.401. 155
89. Pull Box Non-Conductive 24x42-Inch, Item SPV.0060.402..... 155
90. Remove Electrical Service Meter Breaker Pedestal, Item SPV.0060.403..... 156
91. Salvage and Reinstall Microwave Detector Assembly, Item SPV.0060.404. 157
92. Install IP Wireless 5.8 GHZ Radio/Antenna, Item SPV.0060.405. 158
93. Communication Vault-Round, Item SPV.0060.406. 159
94. Compost Tube, Item SPV.0090.001. 160
95. Reinstall Temporary Snow Fence, Item SPV.0090.002. 163
96. Concrete Pavement Joint Sealing, Item SPV.0090.016. 163
97. Pipe Boring & Jacking 36-Inch, Item SPV.0090.017; 48-Inch, Item SPV.0090.018. 165
98. Furnishing Snow Fence, Item SPV.0090.020, Installing Snow Fence, Item SPV.0090.021. 168
99. Concrete Barrier Temporary Precast Left In Place, Item SPV.0090.022. 169
100. Drain Slotted Longitudinal Temporary, Item SPV.0090.030. 170
101. Traffic Control Gawk Screen Furnished, Item SPV.0090.203; and Traffic Control Gawk Screen Installed, Item SPV.0090.204..... 171
102. Survey Project 1003-10-76 with Optional AMG for Concrete Pavement and Base Course, Item SPV.0105.001; 1003-10-81 with Optional AMG for Concrete Pavement and Base Course, Item SPV.0105.002. 173
103. Concrete Pavement Joint Layout, Item SPV.0105.003..... 178
104. Traffic Control for Turtle Creek Recreational Vehicles, Item SPV.0105.010. 178
105. Remove Lighting Control Cabinet, Item SPV.0105.350. 180
106. Temporary Lighting System CTH S Interchange, Item SPV.0105.351. 180
107. Salvage and Reinstall ITS Field Cabinet, Item SPV.0105.401..... 182
108. Salvage and Reinstall Hardwired Bluetooth Sensor, Item SPV.0105.402. 183
109. Temporary Open/Closed Sign System, Item SPV.0105.403. 184
110. Weigh-In-Motion System, Item SPV.0105.480..... 187
111. Weigh-In-Motion System Warranty Maintenance, Item SPV.0105.481. 217
112. Static Scale System Electronics, Item SPV.0105.482. 220
113. Static Scale System Warranty Maintenance, Item SPV.0105.483. 225
114. Temporary Shoring Railroad, Item SPV.0165.701..... 227
115. Longitudinal Grooving Bridge Deck, Item SPV.0165.750..... 229

116. Roadside Infiltration Ditch Compost, Item SPV.0180.002. 230
117. Concrete Truck Apron 8-Inch, Item SPV.0180.005. 233
118. Emulsified Asphalt Median Treatment, Item SPV.0180.010. 234
119. Excavation, Hauling, and Disposal of Contaminated Soil, Item SPV.0195.740. 235

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Projects 1003-10-76, Illinois State Line – Madison, Woodman Road to STH 11, IH 39; ID 1003-10-81, Illinois State Line – Madison, Hart Road to Woodman Road, IH 39, both projects located in Rock County Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2017 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.
100-005 (20161130)

2. Scope of Work.

The work under this contract shall consist of grading, base aggregate, HMA pavement, concrete pavement, concrete barrier, guardrail, Structures B-53-314/315/317/318/320/321/322, S-53-104/113/114, culvert pipe, storm sewer, boring and jacking, permanent signing, pavement marking, lighting, ITS and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

3. Prosecution and Progress.

Begin work within ten calendar days after the engineer issues a written notice to do so.

Provide the start date to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the approved start date.

To revise the start date, submit a written request to the engineer at least two weeks before the intended start date. The engineer will approve or deny that request based on the conditions cited in the request and its effect on the department's scheduled resources.

The contract time for completion is based on an expedited work schedule and may require extraordinary forces and equipment. Included in this "Prosecution and Progress" special provision are interim completion dates. These dates indicate that work efforts will possibly require multiple or concurrent controlling operations to occur at the same time. This

information is included to assist the contractor and its subcontractors and shall not be interpreted as a demonstration of specified means and methods or work periods other than intermediate and completion dates. Indicate on the proposed schedule of operations that a large force and adequate equipment will be needed to assure that the work will be completed within the established contract time.

The contractor is advised that there may be multiple mobilizations for such items as erosion control, traffic control, detours, signing items, temporary pavement markings and other incidental items related to the staging. The department will make no additional payment for said mobilizations.

Winter weather work, excavation for frozen ground, high ground water and dewatering during winter months shall not be considered adverse weather delays to construction. Cost of dewatering is considered incidental to construction.

Anticipate cold weather and early spring concrete paving and ancillary concrete work (curb, median barrier, etc.). Plan to heat aggregates and water for mixes and that the heating of the aggregate and water is considered incidental to those concrete items. There will be no adverse weather delay for cold weather construction.

Conform the schedule of operations to the construction staging as shown in the traffic control plans and as described herein unless modifications to the schedule are approved in writing by the engineer.

Environmental Protection – Tree Removal
Hawks and other raptor species have the potential to inhabit the project limits from 575+00 SB to 585+00 SB, station left. Some species are protected by Wisconsin's Endangered Species Law (s. 29.604 Wis. Stats.) and/or the Federal Migratory Bird Treaty Act. If an individual hawk or nest tree is encountered during construction operations, stop work and notify the engineer and the WisDOT Regional Environmental Coordinator (REC).

To avoid the take of breeding adults, nestlings, and eggs, no Clearing is allowed between March 1 and August 14, both dates inclusive.

Submit a schedule and description of Clearing operations with the ECIP 14 days prior to any Clearing operations. The department will determine, based on schedule and scope of work, what additional erosion control measures shall be implemented prior to the start of Clearing operations, and list those additional measures in the ECIP.

Submit a schedule and description of Clearing operations with the ECIP 14 days prior to any Clearing operations. The department will determine, based on schedule and scope of work, what additional erosion control measures shall be implemented prior to the start of Clearing operations, and list those additional measures in the ECIP.

Northern Long-eared Bat *(Myotis septentrionalis)*
Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees. Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the Federal Endangered Species Act. If an individual bat or active roost is encountered during construction operations, stop work and notify the engineer and the WisDOT Regional Environmental Coordinator (REC).

According to the final 4(d) rule issued for the NLEB, the department has determined that the proposed activity may affect, but will not result in prohibited take of the NLEB. The activity involves tree removal, but will not occur within 0.25 miles of a known hibernacula, nor will the activity remove a known maternity roost tree or any other tree within 150 feet of a known maternity roost tree.

If additional trees need to be removed, no Clearing shall occur without prior approval from the engineer, following coordination with the WisDOT REC. Additional tree removal beyond the area originally specified will require consultation with the United States Fish and Wildlife Service (USFWS) and may require a bat presence/absence survey. Notify the engineer if additional Clearing cannot be avoided to begin coordination with the WisDOT REC. The WisDOT REC will initiate consultation with the USFWS and determine if a survey is necessary.

Submit a schedule and description of Clearing operations with the ECIP 14 days prior to any Clearing operations. The department will determine, based on schedule and scope of work, what additional erosion control measures shall be implemented prior to the start of Clearing operations, and list those additional measures in the ECIP.

Turtle Creek
Suitable Habitat exists in Turtle Creek, at the location of Structures B-53-314 and B-53-315. DNR staff will relocate mussels in the stream in August 2017, such that direct impacts will be avoided during structure construction.

All instream work that could adversely impact water quality shall be undertaken between July 1 and March 14.

If structures must be removed within the March 15-June 30 timeframe, incidental debris that enters the stream shall not be removed from the stream until after July 1.

If construction is planned for the March 15 to June 30 restrictive window, in-stream work must occur within coffer dams to prevent construction from impeding the spring migration of spawning fish. Coffer dams must be installed and removed outside of the restrictive window. If instream work can be fully delayed until May 1, it would be acceptable to place cofferdams after that date to allow instream work to commence through June 30. Direct in-stream impacts (unless within a coffer dam) must be fully avoided between March 15 through April 30.

Unnamed Tributary to the Rock River
The unnamed tributary to the Rock River is an engineered swale that is dry for most of the year and does not support a year round fishery. Construction in this tributary may occur at any time of the year.

A Schedule of Operations
Project 1003-10-76
The department anticipates that the schedule for each stage is as follows:

- Stage 1 – Construct crossovers and temporary pavement
- Stage 2 – Reconstruct IH 39/90 northbound
- Stage 3 – Reconstruct IH 39/90 southbound
- Stage 4 – Complete IH 39/90 median

Project 1003-10-81
The department anticipates that the schedule for each stage is as follows:

- Stage 1 – Construct crossovers and temporary pavement
- Stage 2 – Reconstruct IH 39/90 northbound
- Stage 3 – Reconstruct IH 39/90 southbound
- Stage 4 – Complete IH 39/90 median

Do not switch traffic over to the next construction stage until all signing, pavement marking, reflectors, lighting, tubular marker posts, barricades, and traffic control drums for the stage are in place, and conflicting pavement markings and signs are removed as shown in the traffic control plans and as directed by the engineer.

B Contractor Coordination
The prime contractor shall have a superintendent or designated representative on the job site during all controlling work operations, including periods limited to only subcontractor work operations, to serve as a primary contact person and to coordinate all work operations.

Hold progress meetings once a week for Projects 1003-10-76 and 1003-10-81. The contractor's superintendent or designated representative and subcontractor's representatives for ongoing subcontract work or subcontractor work expected to begin within the next two weeks are to attend and provide a written schedule of the next week(s)' operations. Include begin and end dates of specific prime and subcontractor work operations including lane closures and traffic switches. Invite utilities, Town of Turtle, Town of La Prairie and Rock County Sheriff representatives to attend the progress meetings. Agenda items at the meeting will include review of the contractor's schedule and subcontractors' schedule, utility conflicts and relocation schedule, evaluation of progress and pay items, and making revisions if necessary. Plans and specifications for upcoming work will be reviewed to prevent potential problems or conflicts between contractors.

Coordination with projects 1003-10-84, 1005-10-76, and 1005-11-71 will be required for traffic control staging.

Based on the progress meeting, if the engineer requests a new revised schedule, submit it within seven calendar days. Failure to submit a new schedule within seven days shall result in the engineer holding pay requests until received.

C Work Restrictions

Shift IH 39/90 traffic to their respective locations as shown in Stage 2A (1003-10-76)/Stage 2A (1003-10-81) prior to 12:01 AM on April 1, 2018. This IH 39/90 traffic shift will not be allowed prior to 5:00 AM on March 15, 2018, unless approved by the engineer.

Shift IH 39/90 traffic to their respective locations as shown in Stage 2C (1003-10-76)/Stage 2C (1003-10-81) prior to 12:01 AM on November 15, 2018.

Shift IH 39/90 traffic to their respective locations as shown in Stage 3A (1003-10-76)/Stage 3A (1003-10-81) prior to 12:01 AM on April 1, 2019. This IH 39/90 traffic shift will not be allowed prior to 5:00 AM on March 15, 2019, unless approved by the engineer.

Contract work is allowed during winter shutdown traffic configurations as long as it does not affect the winter shutdown traffic configurations.

Project 1003-10-76

Do not close traffic lanes, shoulders or ramps on IH 39/90 outside the allowed time periods specified in the Traffic article of these special provisions. Assessments per the Lane Rental Fee Assessment article will be charged for lane and ramp closures outside the allowed time periods.

The IH 39/90 northbound exit-ramp to STH 11/Avalon Road will be allowed to be closed for up to two nights during allowable time periods to allow for the construction of temporary ramp VBX2 adjacent to the existing VB ramp during Stage 1A. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The IH 39/90 northbound exit-ramp to STH 11/Avalon Road will be allowed to be closed for one night during allowable time periods to allow for the placement of concrete barrier temporary precast and pavement markings along temporary ramp VBX2 during Stage 2A. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The IH 39/90 northbound exit-ramp to STH 11/Avalon Road will be allowed to be closed for up to two nights during allowable time periods to allow for the removal of the temporary ramp connection adjacent to the VB ramp and placement of concrete barrier temporary precast and pavement markings along temporary ramp VBX3/new ramp VB during Stage 2B. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The IH 39/90 southbound entrance-ramp from STH 11/Avalon Road will be allowed to be closed for up to three nights during allowable time periods to allow for the construction of temporary ramp VCX2 adjacent to the existing VC ramp during Stage 2D. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The IH 39/90 southbound entrance-ramp from STH 11/Avalon Road will be allowed to be closed for one night during allowable time periods to allow for the placement of concrete barrier temporary precast and pavement markings along temporary ramp VCX2 during Stage 3A. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The IH 39/90 southbound entrance-ramp from STH 11/Avalon Road will be allowed to be closed for one night during allowable time periods to allow for the removal of the temporary ramp VCX2 connection adjacent to the new VC ramp and placement of concrete barrier temporary precast and pavement markings along temporary ramp VCX3/new ramp VC during Stage 3B. Do not reopen the ramp until all debris and equipment are removed from the traveled way and its clear zone as defined in the Traffic Article of these special provisions. Do not reopen the ramp until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

Project 1003-10-81

Do not close traffic lanes or shoulders on IH 39/90 outside the allowed time periods specified in the Lane Fee Rental Assessment and Traffic articles of these special provisions. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

Townline Road will be allowed to be closed for two consecutive days for the removal of the IH 39/90 NB bridge and for an additional two consecutive days for the placement of girders for the IH 39/90 NB bridge. Townline Road will be allowed to be closed for two consecutive days for the removal of the IH 39/90 SB bridge and for an additional two consecutive days for the placement of girders for the IH 39/90 SB bridge. No posted detour will be provided. Do not reopen Townline Road until all debris and equipment are removed from the traveled way as defined in the Traffic Article of these special provisions. Do not reopen Townline Road until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The SWEF northbound on and off ramps shall be open at all times with the exception of Stage 2B. The SWEF must be open the first week of June in 2018 and 2019 for a nationwide 72 hour truck check. The SWEF northbound on and off ramps will be allowed to be closed for fourteen calendar days during Stage 2B. Do not reopen the SWEF northbound on and off ramps until all debris and equipment are removed from the traveled way as defined in the Traffic Article of these special provisions. Do not reopen the ramps until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

The contractor is required to provide a request two days in advance of any SWEF ramp closure less than 24 hours in duration.

The CTH S northbound on and off ramps will be open at all times with the exception of Stage 2B. The CTH S northbound on and off ramps will be allowed to be closed for 14 calendar days during Stage 2B. A detour will be posted. Do not reopen the CTH S northbound on and off ramps until all debris and equipment are removed from the traveled way as defined in the Traffic Article of these special provisions. Do not reopen the ramps until all signs, drums, barricades, and traffic control devices required to close the ramp are covered, moved, or removed. See the Traffic article of these special provisions for allowed time periods. Assessments per the Lane Rental Fee Assessment article will be charged for ramp closures outside the allowed time periods.

D Interim Completion of Work

If the contractor fails to complete all work necessary to shift traffic to their respective locations as shown in Stage 2A (1003-10-76)/Stage 2A (1003-10-81), before 12:01 AM April 1, 2018, the department will assess the contractor $20,000 in interim liquidated damages for each

calendar day the contract work remains incomplete beyond 12:01 AM April 1, 2018. An entire calendar day will be charged for any period of time within a calendar day that traffic is not shifted to their respective locations as shown in Stage 2A (1003-10-76)/Stage 2A (1003-10-81) beyond 12:01 AM, April 1, 2018.

If the contractor fails to complete all work necessary to shift traffic to their respective locations as shown in Stage 2C (1003-10-76)/Stage 2C (1003-10-81), before 12:01 AM November 15, 2018, the department will assess the contractor $20,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM November 15, 2018. An entire calendar day will be charged for any period of time within a calendar day that traffic is not shifted to their respective locations as shown in Stage 2C (1003-10-76)/Stage 2C (1003-10-81) beyond 12:01 AM, November 15, 2018.

If the contractor fails to complete all work necessary to shift traffic to their respective locations as shown in Stage 3A (1003-10-76)/Stage 3A (1003-10-81), before 12:01 AM April 1, 2019, the department will assess the contractor $20,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM April 1, 2019. An entire calendar day will be charged for any period of time within a calendar day that traffic is not shifted to their respective locations as shown in Stage 3A (1003-10-76)/Stage 3A (1003-10-81) beyond 12:01 AM, April 1, 2019.

If the contractor fails to complete all work necessary to reopen the IH 39/90 northbound entrance and exit ramps from CTH S to traffic within fourteen consecutive calendar days, as shown in Stage 2B the department will assess the contractor $2,065 in interim liquidated damages for each calendar day the IH 39/90 northbound entrance and ramps from CTH S remains closed to traffic beyond 14 consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remain closed beyond 12:01 AM.

If the contractor fails to complete all work necessary to reopen the IH 39/90 northbound entrance and exit ramps at the SWEF to traffic within fourteen consecutive calendar days, as shown in Stage 2B the department will assess the contractor $2,065 in interim liquidated damages for each calendar day the IH 39/90 northbound entrance and ramps at the SWEF remain closed to traffic beyond 14 consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete all work necessary to reopen Townline Road to traffic within two consecutive days for either the removal process or girder installation as described above the department will assess the contractor $2,065 in liquidated damages for each calendar day Townline Road remains closed to traffic beyond two consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day the road remains closed beyond 12:01 AM.

If contract time expires before completing all work specified in the contract, additional liquidated damages will be affixed according to standard spec 108.11.

4. Lane Rental Fee Assessment.

A General

The contract designates some lane closures to perform the work. The contractor will not incur a Lane Rental Fee Assessment for closing lanes during the allowable lane closure times. The contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the allowable lane closure times. If a lane is obstructed at any time due to contractor operations, it is considered a closure. The purpose of lane rental is to enforce compliance of lane restrictions and discourage unnecessary closures.

The allowable lane closure times are shown in the Traffic article.

Submit the dates of the proposed lane, ramp, and roadway restrictions to the engineer as part of the progress schedule.

Coordinate lane, ramp, and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project. If other projects are in the vicinity of this project, coordinate lane closures to run concurrent with lane closures on adjacent projects when possible. When lane closures on adjacent projects extend into the limits of this project, Lane Rental Fee Assessments will only occur if the closure facilitates work under this contract.

B Lane Rental Fee Assessment

The Lane Rental Fee Assessment incurred for each lane closure, each ramp closure, and each full closure of a roadway, per direction of travel, is as follows:

- $10,000 per lane, per direction of travel, per hour broken into 15 minute increments

The Lane Rental Fee Assessment represents a portion of the cost of the interference and inconvenience to the road users for each closure. All lane, roadway, or ramp closure event increments 15 minutes and less will be assessed as a 15-minute increment.

The engineer, or designated representative, will be the sole authority in determining time period length for the Lane Rental Fee Assessment.

Lane Rental Fee Assessments will not be assessed for closures due to crashes, accidents or emergencies not initiated by the contractor.

The department will assess Lane Rental Fee Assessment by the dollar under the administrative item Failing to Open Road to Traffic. The total dollar amount of Lane Rental Fee Assessment will be computed by multiplying the Lane Rental Assessment Rate by the number of 15-minute increments of each lane closure event as described above.

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance. If interim completion time or contract time expires prior to the completion of specified work in the contract, additional liquidated damages will be assessed according to standard spec 108.11 or as specified within this contract.
stp-108-065 (20161130)

5. Traffic.

A General

The following is a general overview of the traffic control and staging required throughout all stages of the project. The staging requirements are described further in the "Prosecution and Progress" article in these special provisions.

Accomplish the construction sequence, including the associated traffic control as detailed in the Construction Staging section of the plans, and as described in this Traffic article.

Do not begin or continue any work that closes traffic lanes outside the allowed time periods specified in this article.

Any revisions to the traffic control plans shall adhere to the Notice to Contractor, Revisions to Traffic Control Plans article of these special provisions.

IH 39/90, STH 11 (Avalon Road) and local roads will remain open to through traffic at all times for the duration of this project except where noted below and in the Prosecution and Progress article of these special provisions.

Do not close IH 39/90 travel lanes, local road travel lanes, or IH 39/90 ramps prior to or after the specified times provided in this article. If the contractor closes lanes or ramps prior to or fails to open lanes of traffic or ramps by the specified times, then a fee based upon the Lane Rental Fee Assessment article of these special provisions will be assessed to the contractor.

B Traffic Operations During All Stages

- Maintain two lanes of traffic in each direction at all times on IH 39/90*.
- Maintain the existing number of lanes of traffic in each direction at all times on local roads*.
- Maintain traffic on ramps at all times**.
- Maintain mainline traffic on IH 39/90 on a paved concrete or hot mix asphalt surface at all times.
- Maintain a minimum lane width of 12-feet on IH 39/90 (16-foot minimum clear width when restricted to one lane) and ramps.
- Maintain a minimum lane width of 11-feet on local roads.

* Lane, shoulder, and rolling stop closures allowed as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.

**Ramp closures allowed as specified as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.

C Traffic Operations

Project 1003-10-76

- Stage 1
  - IH 39/90 traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures section of this article.
  - IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article during Stage 1A. IH 39/90 southbound entrance-ramp at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times.
  - Woodman Road traffic will be maintained on all existing lanes at all times.
  - STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

- Winter Shutdown Configuration
  - During winter shutdown, northbound and southbound IH 39/90 traffic will remain on the existing northbound and southbound travel lanes.
  - IH 39/90 northbound exit-ramp and southbound entrance-ramp at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times.
  - Woodman Road traffic will be maintained on all existing lanes at all times.
  - STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

- Pre Stage 2A
  - IH 39/90: Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - Traffic will be maintained on all existing lanes at all times along the IH 39/90 northbound exit-ramp and southbound entrance-ramp at the STH 11/Avalon Road interchange.
  - Woodman Road traffic will be maintained on all existing lanes at all times.
  - STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

- Stage 2A
  - Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article. IH 39/90 northbound traffic will use the crossover constructed under project 1003-10-81 to switch to the southbound side of IH 39/90. IH 39/90 northbound traffic will use a crossover constructed by others under project 1005-10-76 to switch back to the northbound side of IH 39/90. IH 39/90 southbound traffic will be shifted to the outside of southbound IH 39/90. Traffic will switch at the completion of Pre Stage 2A Phase 2.
  - IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will use temporary ramp crossover VBX2, constructed in Stage 1. IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - IH 39/90 southbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times.
  - Woodman Road traffic will be maintained on all existing lanes at all times.
  - STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

- Stage 2B
  - IH 39/90 northbound and southbound traffic will continue to be bi-directional on the southbound side of IH 39/90. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will switch to temporary ramp crossover VBX3 constructed in Stage 2A. IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - IH 39/90 southbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times.
  - Woodman Road traffic will be maintained on all existing lanes at all times.
  - STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

- Stage 2C
  - IH 39/90 southbound traffic will remain on the outside of southbound IH 39/90 and IH 39/90 northbound traffic will be shifted to the new northbound IH 39/90 at the completion of Stage 2B. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.

- IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will switch from temporary ramp VBX3 to the IH 39/90 northbound exit-ramp VB constructed in Stage 2A. IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will switch at the completion of Stage 2B. IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
- IH 39/90 southbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times.
- Woodman Road traffic will be maintained on all existing lanes at all times.
- STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

· Winter Shutdown Configuration
  - During winter shutdown, northbound IH 39/90 traffic will remain on the new northbound travel lanes and the southbound IH 39/90 traffic will remain on the existing southbound travel lanes.
  - IH 39/90 northbound exit-ramp and southbound entrance-ramp at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times.
  - Woodman Road traffic will be maintained on all existing lanes at all times.
  - STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

· Stage 2D
  - Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
  - IH 39/90 southbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - Woodman Road traffic will be maintained on all existing lanes at all times.
  - STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

· Stage 3A
  - IH 39/90 northbound traffic will continue to use the outside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 northbound traffic will use a mainline crossover constructed by others under project 1005-10-76 to switch to the southbound side of IH 39/90 to accommodate project 1005-10-77. IH 39/90 southbound traffic will use a mainline crossover constructed by others under project 1005-10-76 to switch to the inside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 southbound traffic will use a mainline crossover constructed under project 1003-10-81 to switch back to the southbound side of IH 39/90. Traffic will switch at the completion of Stage 2D. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic

will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.

- IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will continue to use the IH 39/90 northbound exit-ramp VB constructed in Stage 2. IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
- IH 39/90 southbound entrance-ramp at the STH 11/Avalon Road interchange will switch from the existing southbound exit-ramp to temporary ramp crossover VCX2 constructed in Stage 2D. IH 39/90 southbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
- Woodman Road traffic will be maintained on all existing lanes at all times.
- STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

· Stage 3B
  - IH 39/90 northbound and southbound traffic will continue to be bi-directional on the new northbound side of IH 39/90 completed in Stage 2. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will continue to use the IH 39/90 northbound exit-ramp VB constructed in Stage 2. IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
  - IH 39/90 southbound entrance-ramp traffic at the STH 11/Avalon Road interchange will switch from temporary ramp crossover VCX2 to temporary ramp VCX3 constructed in 3A. IH 39/90 southbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - Woodman Road traffic will be maintained on all existing lanes at all times.
  - STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

· Stage 4
  - IH 39/90 northbound traffic will continue to use the outside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 southbound traffic will switch to the outside of the new southbound side of IH 39/90 at the completion of Stage 3B. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.

- IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will continue to use the IH 39/90 northbound exit-ramp VB constructed in Stage 2. IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
- IH 39/90 southbound entrance-ramp traffic at the STH 11/Avalon Road interchange will switch from temporary ramp VCX3 to the IH 39/90 southbound entrance-ramp VC constructed in Stage 3A. IH 39/90 southbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times.
- Woodman Road traffic will be maintained on all existing lanes at all times.
- STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

Project 1003-10-81

- Stage 1
  - IH 39/90 traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures section of this article.
  - Townline Road traffic will be maintained on all existing lanes at all times.
  - CTH S traffic will be maintained on all existing lanes at all times.

- Winter Shutdown Configuration
  - During winter shutdown, northbound and southbound IH 39/90 traffic will remain on the existing northbound and southbound travel lanes.
  - IH 39/90 northbound exit-ramp and southbound entrance-ramp at the CTH S interchange will be maintained on all existing lanes at all times.
  - Townline Road traffic will be maintained on all existing lanes at all times.
  - CTH S traffic will be maintained on all existing lanes at all times.

- Stage 2A
  - Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article. IH 39/90 northbound traffic will use the crossover constructed under project 1003-10-81 to switch to the southbound side of IH 39/90. IH 39/90 northbound traffic will use a crossover constructed by others under project 1005-10-76 to switch back to the northbound side of IH 39/90. IH 39/90 southbound traffic will be shifted to the outside of southbound IH 39/90.
  - CTH S northbound entrance-ramp traffic at the CTH S interchange will use the temporary ramp constructed in Stage 1. IH 39/90 northbound exit-ramp traffic at the CTH S interchange will be maintained at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.

- IH 39/90 southbound entrance-ramp and exit ramp traffic at the CTH S interchange will be maintained on all existing lanes at all times.
- Townline Road traffic will be maintained on existing lanes at all times, with the exception of a full closure of Townline Road for two consecutive calendar days.
- CTH S traffic will be maintained on existing lanes at all times.

· Stage 2B
  - IH 39/90 northbound and southbound traffic will continue to be bi-directional on the southbound side of IH 39/90. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will switch to temporary ramp crossover VBX3 constructed in Stage 2A. IH 39/90 northbound exit-ramp traffic at the STH 11/Avalon Road interchange will be maintained at all times except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - IH 39/90 southbound entrance-ramp traffic at the STH 11/Avalon Road interchange will be maintained on all existing lanes at all times.
  - Woodman Road traffic will be maintained on all existing lanes at all times.
  - STH 11/Avalon Road traffic will be maintained on all existing lanes at all times.

· Stage 2C
  - IH 39/90 southbound traffic will remain on the outside of southbound IH 39/90 and IH 39/90 northbound traffic will be shifted to the new northbound IH 39/90 at the completion of Stage 2B. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - Townline Road traffic will be maintained on all existing lanes at all times.
  - CTH S traffic will be maintained on all existing lanes at all times.

· Winter Shutdown Configuration
  - During winter shutdown, northbound IH 39/90 traffic will remain on the new northbound travel lanes and the southbound IH 39/90 traffic will remain on the existing southbound travel lanes.
  - IH 39/90 northbound and southbound entrance and exit ramps at the CTH S interchange will be maintained on all existing lanes at all times.
  - Townline Road traffic will be maintained on all existing lanes at all times.
  - CTH S traffic will be maintained on all existing lanes at all times.

- Stage 3A
  - IH 39/90 northbound traffic will continue to use the outside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 northbound traffic will use a mainline crossover constructed by others under project 1005-10-76 to switch to the southbound side of IH 39/90 to accommodate project 1005-10-77. IH 39/90 southbound traffic will use a mainline crossover constructed by others under project 1005-10-76 to switch to the inside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 southbound traffic will use a mainline crossover constructed under project 1003-10-81 to switch back to the southbound side of IH 39/90. Traffic will switch at the completion of Stage 2D. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - At the start of Stage 3A, CTH S southbound ramps will be closed for two consecutive days to complete the CTH S ramp crossovers that will be used for the duration of Stage 3A.
  - Townline Road traffic will be maintained on existing lanes at all times, with the exception of a full closure of Townline Road for two consecutive calendar days.
  - CTH S traffic will be maintained on existing lanes at all times.

- Stage 3B
  - IH 39/90 northbound and southbound traffic will continue to be bi-directional on the new northbound side of IH 39/90 completed in Stage 2. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - The CTH S interchange will continue to operate in the same configuration as Stage 3A, except the location of the temporary ramp access to southbound IH 39/90 will be shifted.
  - Townline Road traffic will be maintained on all existing lanes at all times.

- Stage 4
  - IH 39/90 northbound traffic will continue to use the outside of the new northbound side of IH 39/90 completed in Stage 2. IH 39/90 southbound traffic will switch to the outside of the new southbound side of IH 39/90 at the completion of Stage 3B. Two lanes of traffic will be maintained in the northbound direction and two lanes of traffic will be maintained in the southbound direction except as specified in the Lane and Shoulder Closures and Roadway, Ramp, and Rolling Stop Closures sections of this article.
  - The CTH S interchange will operate in its final configuration.
  - Townline Road traffic will be maintained on all existing lanes at all times.

Coordinate and stage all construction activities within the areas of local traffic routes, as required to maintain a traveled way conforming to all above requirements.

Do not switch traffic over to the next construction stage until all temporary barrier, signing, pavement marking, reflectors, tubular marker posts, and traffic control drums for the stage are in place, and conflicting pavement markings and signs are removed as shown in the traffic control plans and as directed by the engineer. Allowable exceptions to this specification are at intersection areas where traffic control cannot be completed until after the switch is made.

Use drums and barricades to direct local vehicular and pedestrian traffic in the work zone and to protect and delineate hazards such as open excavations, abrupt drop-offs, and exposed manholes, inlets, hydrants, etc. The use of such devices shall be incidental to the operation which creates the hazard.

Place roadway signing and roadway temporary pavement marking as detailed on the plans and in conformance to the Manual on Uniform Traffic Control Devices (MUTCD), latest edition. Traffic control shall be completely in place by the end of the working day of a traffic switch.

Do not deliver or store materials and equipment within open travel lanes or open side roads during any stage of construction. Temporary lane closures and/or halting of traffic within open roadways require flaggers and will only be allowed during permitted lane closure times.

Do not at any time conduct construction operations in the median area and adjacent outside area of IH 39/90 at the same time without the permission of the engineer.

Obtain approval from the engineer for the location of any ingress or egress access points for construction vehicles outside the allowed time periods specified in the Traffic article of these special provisions.

For temporary shoring installations, store materials and operate equipment within the work zone and not within the limits of adjacent lane closures.

D Lane and Shoulder Closures

Single lane closures on IH 39/90 will be allowed during permitted lane closure times defined below in this article. During the times when one lane is allowed to be closed, a minimum clear width of 16 feet, including the adjacent shoulder, shall be maintained at all times. Times listed for lane and shoulder closures include setup and breakdown of any equipment and traffic control devices.

Projects 1003-10-76 and 1003-10-81

Permitted IH 39/90 Lane Closure Times	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 5:00 AM 9:00 PM – 11:59 PM
Friday	12:00 AM – 5:00 AM 10:00 PM – 11:59 PM
Saturday	12:00 AM – 7:00 AM 9:00 PM – 11:59 PM
Sunday	12:00 AM – 7:00 AM 10:00 PM – 11:59 PM

Shoulders may be closed at any time if required by the work operation, but the right and left shoulder may not be closed in the same area at the same time.

Request approval from the engineer for all lane closures according to the requirements of the subsection titled "Wisconsin Lane Closure System Advanced Notification" of this article. Include justification for the lane closure and the anticipated duration in the request. A request does not constitute approval. Terminate single lane prior to the end of the permitted lane closure times. Failure to obtain approval or reopen closed lanes at the required time shall be subject to assessments specified in the Lane Rental Fee Assessment article of these special provisions.

Maintain two mile minimum spacing between simultaneous lane closures. The two mile spacing is measured from the end of the first lane closure to beginning of taper for the next lane closure.

Provide arrow boards for use during all single lane closures according to the MUTCD. Arrow boards for single lane closures will be paid for under the item Traffic Control Arrow Boards for each day with a single lane closure where an arrow board is in use.

E Roadway, Ramp, and Rolling Stop Closures

Maintain full access as shown in the Construction Staging section of the plans except those defined in the Prosecution and Progress article of these special provisions.

Place Traffic Control Signs PCMS for all lane, roadway and ramp closures as shown on the plans at least seven days prior to the lane, roadway or ramp closure

Roadway Closures - 1003-10-81

Roadway closures will be allowed at Townline Road and the CTH S northbound on and off ramps to accommodate the roadway and structure work as defined in the Prosecution and Progress article of these special provisions.

Nighttime Ramp Closures - Project 1003-10-76

The nighttime ramp closures of the IH 39/90 southbound entrance-ramp and northbound exit-ramp at the STH 11/Avalon Road interchange are specified in the Prosecution and Progress article of these special provisions.

Permitted IH 39/90 Southbound Entrance-Ramp and Northbound Exit-Ramp Nighttime Closure Hours at the STH 11/Avalon Road Interchange	
Day of the Week	Hours
Monday - Sunday	8:00 PM – 5:00 AM

Failure to reopen the ramps at the required times shall be subject to assessments specified in the Lane Rental Fee Assessment article of these special provisions.

The contractor shall have a superintendent or representative present during all hours that closures of the southbound entrance-ramp at STH 11/Avalon Road interchange and the northbound exit-ramp at the STH 11/Avalon Road interchange occur. During ramp closures, the superintendent or representative shall monitor the work activities to ensure that emergency vehicles are able to access the ramp.

Rolling Closures

Permitted IH 39/90 Rolling Stop Closure Times	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 5:00 AM 11:00 PM – 11:59 PM

Contractor operations shall not require state patrol cars to stop IH 39/90 traffic for more than the number of nights listed in the Prosecution and Progress article of these special provisions. The necessary flag persons, advanced signing and law enforcement personnel are required to be on site prior to and during this operation. Make arrangements for implementing the rolling stops and closures on IH 39/90 through Jeff Gustafson at the Southwest Region Madison Office at (608) 516-6400, with the Southwest Region Office of the Wisconsin State Patrol, the Rock County Sheriff's Department, and the Dane County Sheriff's Department at least 10 days prior to any stoppage.

Failure to reopen the roadway at the required times shall be subject to penalties specified under the Prosecution and Progress and the assessments specified under the Lane Rental Fee Assessment articles of these special provisions.

F Local Access to Project

Maintain local traffic access during the construction of the local roads. Stage construction activities as required to maintain local traffic access.

Construct and maintain a local traffic access route on any section of roadway that will carry only local traffic conforming to the following criteria:

- Number of Lanes: One lane in each direction
- Lane Width: Minimum of eleven foot width OR one lane roadway with flagging
- Driving Surface: Acceptable driving surfaces include base aggregate dense, asphaltic surface temporary, HMA pavement, concrete pavement and milled surfaces.

G Advance Notification

Notify the Town of Turtle, Town of La Prairie, Rock County Sheriff's Department and Highway Commissioner, Wisconsin State Patrol through Jeff Gustafson of WisDOT Southwest Region at (608) 516-6400 or jeffrey.gustafson@dot.wi.gov, 48 hours in advance of the start of work, closures of existing streets, and prior to traffic control changes. Notifications must be given by 4:00 PM on Thursday for any such work to be done on the following Monday.

The department has the authority to disallow any requested closures or width restrictions.

Advance notification as described above is considered to be included in the Traffic Control Surveillance and Maintenance (Project) bid item.

H Clear Zone Working Restrictions

Do not leave any slopes steeper than 3:1 within the clear zone or any drop offs at the edge of the traveled way greater than 2 inches which are not protected by concrete barrier temporary precast. The construction clear zone for IH 39/90 is 20 feet. The construction clear zone for the southbound entrance-ramp at STH 11/Avalon Road interchange with IH 39/90 and the northbound exit-ramp at the STH 11/Avalon Road interchange with IH 39/90 is 18 feet.

Do not perform heavy equipment work in the median or adjacent to the shoulder at any time unless protected by concrete barrier in both directions, except during night work with allowed lane closures.

Store materials or park equipment a minimum of 34-feet from the edge of the IH 39/90 traveled way. Equipment may be parked in the median if it is protected by concrete barrier.

If the contractor is unsure whether an individual work operation will meet the safety requirements for working within the clear zone, review the proposed work operation with the engineer before proceeding with the work.

I Portable Changeable Message Signs – Message Prior Approval

After coordinating with department construction field staff, notify Jeff Gustafson at the Southwest Region Madison Office, (608) 516-6400, three weeks prior to deploying or changing a message on a PCMS to obtain approval of the proposed message. The department will review the proposed message and either approve the message or make necessary changes.

J Wisconsin Lane Closure System Advance Notification

Provide the following advance notification to the engineer for incorporation into the Wisconsin Lane Closure System (LCS).

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

Closure type with height, weight, or width restrictions (available width, all lanes in one direction < 16')	MINIMUM NOTIFICATION
Lane and shoulder closures	7 calendar days
Full roadway closures	7 calendar days
Ramp closures	7 calendar days
Detours	7 calendar days
Closure type without height, weight, or width restrictions (available width, all lanes in one direction ≥16')	MINIMUM NOTIFICATION
Lane and shoulder closures	3 business days
Ramp closures	3 business days
Modifying all closure types	3 business days

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date.
stp-108-057 (20161130)

Notify the engineer and WisDOT Statewide Traffic Operations Center (STOC) at (414) 227-2142 if there are any changes in the schedule, early completions, or cancellations of scheduled work.

The department has the authority to disallow any requested closures or width restrictions.

Coordinate with the engineer prior to any traffic detour to allow at least ten working days for the review of the detour route marker signing. The engineer shall contact the Southwest Region Madison Office Traffic Management Coordinator, Jeff Gustafson, (608) 516-6400.

K Portable Intelligent Transportation System
The department may be supplying and operating an intelligent transportation system during the construction of this project. The ITS system may consist of a portable video surveillance system and portable changeable message signs. These portable units may be parked inside and outside the construction limits to help assist law enforcement and the department with monitoring traffic conditions during the construction activities.

The department will coordinate the placement of these devices with the contractor. The contractor will be required to accommodate the placement of these devices within the project. The general accommodations include an area to park the devices out of the clear zone but still visible to traffic and access to and from the devices. Contact the Southwest Region Traffic Section, Graham Heitz at (608) 246-5362 for specific details regarding the intelligent transportation system.

L Protection of Structures
Bridge pier columns and sign bridge bases are to remain protected at all times throughout construction.

M Construction Access
All construction access is subject to approval of the engineer.

Construction traffic cannot travel counter-directional adjacent to IH 39/90 traffic except behind temporary concrete barrier.

U-Turns at existing maintenance crossovers or temporary crossovers between IH 39/90 northbound and southbound will be allowed only when lane closures are in place for inside northbound and southbound lanes.

Construction operations affecting the traveling public's safety on IH 39/90 will not be allowed during snow and ice conditions, or any other adverse weather conditions, unless approved by the engineer.

Delivery of equipment to IH 39/90 requiring the use of a semi-tractor and trailer shall only occur during those hours identified as IH 39/90 Permitted Lane Closure Times.

N Enhanced Reference Location Signing
Maintain all existing enhanced reference location signing throughout the duration of the project as shown in the plans.

6. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying IH 39/90 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From 12:00 AM Monday October 9, 2017 to 11:59 PM Monday, October 9, 2017 for Columbus Day;
- From noon Friday, November 17, 2017 to 6:00 AM Monday, November 27, 2017 for Deer Hunting and Thanksgiving;
- From noon Friday, December 22, 2017 to 6:00 AM Tuesday, January 2, 2018 for Christmas and New Year's Eve;
- From noon Friday, March 30, 2018 to 6:00 AM Monday, April 2, 2018 for Easter;
- From noon Friday, May 25, 2018 to 6:00 AM Tuesday, May 29, 2018 for Memorial Day;
- From noon Friday, June 29, 2018 to 6:00 AM Thursday, July 5, 2018 for Independence Day;
- From noon Friday, August 31, 2018 to 6:00 AM Tuesday, September 4, 2018 for Labor Day;
- From 12:00 AM Monday October 8, 2018 to 11:59 PM Monday, October 8, 2018 for Columbus Day;
- From noon Friday, November 16, 2018 to 6:00 AM Monday, November 26, 2018 for Deer Hunting and Thanksgiving;
- From noon Friday, December 21, 2018 to 6:00 AM Wednesday, January 2, 2019 for Christmas and New Year's Eve;
- From noon Friday, April 19, 2019 to 6:00 AM Monday, April 22, 2019 for Easter;
- From noon Friday, May 24, 2019 to 6:00 AM Tuesday, May 28, 2019 for Memorial Day;
- From noon Wednesday, July 3, 2019 to 6:00 AM Monday, July 8, 2019 for Independence Day;
- From noon Friday, August 30, 2019 to 6:00 AM Tuesday, September 3, 2019 for Labor Day;
- From 12:00 AM Monday October 14, 2019 to 11:59 PM Monday, October 14, 2019 for Columbus Day.

107-005 (20050502)

7. Utilities.

This contract comes under the provision of Administrative Rule Trans 220.
107-065 (20080501)

There are underground and overhead utility facilities located within the project limits. There are known utility adjustments required for the construction project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to ensure the integrity of underground facilities and maintain code clearance from overhead facilities at all times. Adjustments in the location of certain described items may be necessary, as directed by the engineer, when it becomes evident that a utility conflict could occur.

Project 1003-10-76
The following utility companies have facilities within the project area.

AT&T Wisconsin (Communication) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Carol Anason, 316 West Washington Avenue, Madison, WI 53703; (608) 252-2385; e-mail: ca2624@att.com.

MCI/Verizon (Communication) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Thomas Buher, 7719 W. 60th Place, Summit, IL 60501; (708) 458-6410; email: Thomas.buher@verizon.com.

Rock Energy Cooperative (Electric) – has facilities within the project limits. Existing power poles along the east side of IH 39 between Station 572+00 and Station 597+00 will be removed prior to construction. No conflicts are anticipated.

The field contact is Lynn Maier, 2815 Kennedy Road, Janesville, WI 53547; (608) 752-4550; email: lynnm@rock.coop.

Project 1003-10-81
The following utility companies have facilities within the project area.

Alliant Energy (Electric) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Craig Hendricks, 4902 N. Biltmore Lane, Madison, WI 53718; (608) 458-8184; e-mail: craighendricks@alliantenergy.com.

Alliant Energy (Gas) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Craig Hendricks, 4902 N. Biltmore Lane, Madison, WI 53718; (608) 458-8184; e-mail: craighendricks@alliantenergy.com.

AT&T Wisconsin (Communication) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Carol Anason, 316 West Washington Avenue, Madison, WI 53703; (608) 252-2385; e-mail: ca2624@att.com.

ATC (Electric) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Alex Metz, 5303 Fen Oak Drive, Madison, WI 53718; (608) 252-2385; e-mail: ametz@atcllc.com.

Charter Communications (Communication) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Brandon Storm, 2701 Daniels Street, Madison, WI 53718; (608) 274-3822; e-mail: Brandon.storm@charter.com.

McLeod USA (Communication) – has facilities within the project limits. No conflicts are anticipated.

The field contact is Aaron Grodi, 13935 Bishops Drive, Brookfield, WI 53005; (608) 819-5014; email: aaron.grodi@windstream.com.

Rock Energy Cooperative (Electric) – has facilities within the project limits. Existing facilities will be relocated at Town Line Road to avoid the proposed IH 39 structures over Town Line Road. Relocations will be completed prior to the start of construction.

The field contact is Lynn Maier, P.O. Box 1758, Janesville, WI 53547; (608) 752-4550; email: lynnm@rock.coop.

8. Railroad Insurance and Coordination.

A Description

Comply with standard spec 107.17 for all work affecting Union Pacific Railroad (UPR) property and any existing tracks.

A.1 Railroad Insurance Requirements

In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3. Insurance is filed in the name of Union Pacific Railway Company.

Notify evidence of the required coverage, and duration to Danielle Allen, UPR Contract Administrator, 1400 Dodge Street, Stop 1690, Omaha, NE 68179; Telephone (402) 544-8020; e-mail: danielleallen@up.com. Include the following information on the insurance document:

Project: 1003-10-76
Route Name: IH 39/90, Rock County
Crossing ID: 177985L
Railroad Subdivision: Harvard
Railroad Milepost: 86.35

A.2 Work by Railroad

The railroad will perform the work described in this section, except for work described in other special provisions and will be accomplished without cost to the contractor. None.

A.3 Names and Addresses of Railroad Representatives for Consultation and Coordination

Construction Contact

John Venice, Manager Special Projects – Industry & Public Projects Engineering Department, 101 North Wacker Drive – Suite 1920, Chicago, IL 60606; Telephone (312) 777-2043; E-mail jnvenice@up.com, for consultation on railroad requirements during construction.

Amend standard spec 108.4 to include the railroad in the distribution of the initial bar chart, and monthly schedule updates. The bar chart shall specifically show work involving coordination with the railroad.

Flagging Contact

See Construction Contact. If more than thirty days of flagging is required contact UP thirty days prior to needing a flagger on site. Reference the Wisconsin Milepost and Subdivision located in A.1.

Cable Locate Contact

In addition to contacting Diggers Hotline, contact the UPR Call Before You Dig line at (800) 336-9193 at least five working days before the locate is needed. Normal business hours are 6:30 AM to 6:30 PM, Central Time, Monday through Friday, except holidays and are subject to change. Calls will be routed at all times in case of an emergency. Reference the Wisconsin Milepost and Subdivision located in A.1.

UPR will only locate railroad owned cable buried in the railroad right-of-way. The railroad does not locate any other utilities.

A.4 Temporary Grade Crossing

If a temporary grade crossing is desired, submit a written request to the railroad representative named in A.3 several weeks prior to the time needed. Approval is subject to the discretion of the railroad. The department has made no arrangements for a temporary grade crossing.

A.5 Train Operation
Six through freight trains operate daily through the construction site. Through freight trains operate at up to 25 mph. Two switching train movements occur daily through the crossing.

A.6 Temporary Clearances During Construction
Replace subparagraphs (3) 4.1 and (3) 4.2 of standard spec 107.17.1 with the following:

> Provide 15 feet 0 inches (4.572 m) plus 1.5 inches (38 mm) per degree of track curvature, measured horizontally from the track center line.
>
> Provide 21 feet 6 inches (6.5534 m) plus compensation for super-elevated track, measured vertically above the top of the highest rails.

B Railroad Flagging
Arrange with the railroad for the flagging of trains and safety of railroad operations if clearances specified in standard spec 107.17.1 are not maintained during construction operations. The following conditions may also warrant flagging:

1. Cranes swinging or handling materials or equipment within 25 feet of the centerline of any track.
2. Construction operations that are in proximity of power lines or railroad signal and communication lines, underground cables, fuel oil facilities or pipe lines and which might result in fire or damage to such facilities, danger to railroad operations or danger to the public in the transaction of business on railroad premises.
3. Excavation, tunneling, blasting, pile driving, placing, or removing cofferdams or sheeting, or similar activities might cause the railroad's tracks or buildings to be undermined, heaved out of normal level, shifted out of alignment, or otherwise impaired.
4. Bridge painting activities including rigging of falsework, scaffolding or similar activities within 25 feet of the centerline of any track.
5. Deck removal activities within 25 feet of the centerline of any track.
6. Pouring of bridge decks in spans over an operated track.
7. At any other time in railroad representative's judgment, the contractor's work or operations constitute an intrusion into the track zone and create an extraordinary hazard to railroad traffic, and at any other time when flagging protection is necessary for safety to comply with the operating rules of the railroad.

Projects with concurrent activity may require more than one flagger.

Projects with heavy contractor activity within 25 feet of the centerline of any track or unusual or heavy impact on railroad facilities will normally require a full-time flagger.

The department and railroad will monitor operations for compliance with the above flagging requirements. Violations may result in removal from railroad property until arrangements to adhere to the flagging requirements are satisfied. If the railroad imposes additional flagging

requirements beyond the above flagging requirements due to the previous violations, the contractor shall bear all costs of the additional flagging requirements.

C Flagging by Railroad– Railroad Does Not Pay Flagging Costs

C.1 General

Replace paragraph (3) of standard spec 107.17.1 with the following:

Comply with the railroad's rules and regulations regarding operations on railroad right-of-way. If the railroad's chief engineering officer requires, arrange with the railroad to obtain the services of qualified railroad employees to protect railroad traffic through the work area. Bear the cost of these services and make payment directly to the railroad. Notify the appropriate railroad representative as listed in section A.3 above, in writing, at least ten business days before starting work near a track. Provide the specific time planned to start the operations.

Extended Duration Work or Longer Work Day (to be used when requiring a flagger for longer periods of time, 4-weeks or more, or working longer than an 8-hour work day, or as defined in section B.1.)

Work that requires railroad flaggers to occupy the work zone for longer duration or longer than the normal work day will require 40 day written notice to the railroad.

C.2 Rates – Union Pacific

The following rates, reimbursement provisions, and excluded conditions will be used to determine the contractor's cost of flagging:

> $750 daily rate for an 8-hour day (including wages, labor surcharges, lodging, vehicle and mileage expenses),
>
> $1,500 "Rest Time" or nightly rate for weekday overnight work for an 8-hour day (including wages, labor surcharges, lodging, vehicle and mileage expenses)
>
> $1150 daily rate for an 8-hour day on Saturdays, Sundays, or holidays (including wages, labor surcharges, lodging, vehicle and mileage expenses)
>
> $1,500 "Rest Time" or nightly rate for weekend overnight work for an 8-hour day (including wages, labor surcharges, lodging, vehicle and mileage expenses)
>
> $150 per hour overtime rate for all time worked before or after the regular assigned 8 hours on any day, or for a minimum 3 hour call on Saturdays, Sundays, or Holidays.

The flagger is required to set flags each day in advance of the contractor commencing work that will require flagging. The flagger must also remove the flags each day after the completion of work that required flagging. Any time worked before or after the minimum 8-hour flagging day to set or remove flags will be billed at the overtime rate. The contractor

is responsible for knowing the requirements of the railroad for arranging and terminating flagging services and for the associated costs of those services.

C.3 Reimbursement Provisions

The actual cost for flagging will be billed by the railroad. After the completion of the work requiring flagging protection as provided in section B above, the department will reimburse 50% of the cost of such services up to the rates provided above based on paid railroad invoices, except for the excluded conditions enumerated below. In the event actual flagging rates exceed the rates stated above, the department will reimburse 100% of the portion of the rate that is greater than the rates stated above.

C.4 Excluded Conditions

The department will not reimburse any of the cost for additional flagging attributable to the following:

1. Additional flagging requirements imposed by the railroad beyond the flagging requirements provided in subsection B above due to violations by the contractor.

2. Temporary construction crossings arranged for by the contractor.

The contractor shall bear all costs of the additional flagging requirements for the excluded conditions.

C.5 Payment for Flagging

Railroads may issue progressive bills. Notify the railroad when the work is completed and request a final bill from the railroad. The railroad will issue a final bill. Promptly pay railroad-flagging bills, less any charges that may be in dispute. The department will pay for flagging reimbursement under the Railroad Flagging Reimbursement administrative item. The department will withhold flagging reimbursement until any disputed charges are resolved and the final bill is paid. No reimbursement for flagging will be made by the department if a violation of subsection B is documented.

D Rail Security Awareness and Contractor Orientation

Prior to entry on railroad right-of-way, the contractor shall arrange for on-line security awareness and contractor orientation training and testing, and be registered through "e-RAILSAFE" for all contractor and subcontractor employees working on railroad right-of-way. See e-railsafe.com "Information". The security awareness and contractor orientation training is shown under the railroad's name. The department has secured right of entry to railroad property; neither the contractor nor subcontractors or their employees will be required to sign a right-of-entry form. The security awareness and contractor orientation certification is valid for two year(s) and must be renewed for projects that will carry over beyond the two year period. Contractor and subcontractor employees shall wear the identification badge issued by e-RAILSAFE when on railroad right-of-way. Costs associated with training and registration are incidental to other items in the contract.
stp-107-034 (20130615)

9. Union Pacific Railroad Company Requirements.

A General

In addition to requirements of the standard specifications and other articles within these special provisions, comply with the following requirements of Union Pacific Railroad Company (UPRR).

B Request for Information / Clarification

All requests for information (RFI) involving work within UPRR right-of-way shall be according to the procedures listed elsewhere in the special provisions. Submit all RFIs to the engineer for submittal to UPRR. Allow four weeks for UPRR's review after receipt from the engineer.

C Plans / Specifications

Changes to the plans or specifications are subject to the approval of UPRR. Submit all change requests to the engineer. Allow four weeks for UPRR review time after receipt of a change request from the engineer.

D Construction Submittals

Submit six sets of the following to the engineer. All design submittals shall be stamped and signed by a professional engineer registered in the State of Wisconsin. The engineer will submit four sets of each submittal, along with any review comments to UPRR. A satisfactory submittal review does not relieve the contractor of responsibility and liability. The engineer and UPRR may review the submittals. If the engineer or UPRR finds a submittal unsatisfactory, make all required changes and resubmit it. A satisfactory submittal review does not relieve the contractor of responsibility and liability of complying with the plans, specifications and the special provisions and for the structural integrity and proper functioning of the item that is the subject of the submittal. Allow four weeks for UPRR's review time after receipt of a submittal from the engineer.

Item Description of Submittal Item Notes
Shoring Design and Details
Falsework Design and Details
Drainage Design Provisions
Erection Diagrams and Sequence
Demolition Diagram and Sequence
Shop Drawings Steel and concrete members.

Whenever work may affect the operations or safety of trains, the method of doing such work shall first be submitted to UPRRs designated representative for review. Review by UPRR shall not relieve the contractor from liability.

E Infringement On Minimum Clearances
Submit to the engineer requests for infringement upon the minimum horizontal or vertical clearance requirements of standard spec 107.17.1(2)4.

The engineer will submit the requests to UPRR's designated representative. Allow four weeks for UPRR's review time after receipt of a submittal from the engineer. Do not infringe upon the minimum clearances unless they are first approved in writing by UPRR.

F Approval of Details
Submit details of construction affecting UPRR tracks, structure, and right-of-way not included in the plans to the engineer for UPRR review before undertaking such work. Allow four weeks for UPRR's review after receipt from the engineer.

G Site Inspections By UPRR
UPRR may make site inspections at any time. Provide the engineer a schedule of anticipated dates for the following activities; the engineer will furnish the schedule to UPRR:

1. Shoring
2. Demolition
3. Falsework
4. Erection of superstructure
5. Completion of the bridge structure

Update the schedule monthly, or more frequently if necessary, so that site visits may be scheduled.

I Construction Excavations and Demolition
Construction excavations shall meet OSHA and American Railway Engineering and Maintenance-of-Way Association (AREMA) requirements and the UPRR "Guidelines for Temporary Shoring" (GTS).

Demolition shall be done according to Union Pacifics Guidelines for Preparation of a Bridge Demolition and Removal Plan for Structures over Railroad (GPBDRP).

The GTS and the GPBDRP are available for review from the Southwest Region's Railroad Coordinator at the department's Southwest Regional Office located at 2101 Wright Street, Madison, Wisconsin 53704.

10. Other Contracts.

Modifications to the traffic control plan may be required by the engineer to be safe and consistent with adjacent work by others.

It is expected that routine maintenance by the county and town personnel may be required at certain times concurrently with work being done under this contract.

The following contracts are anticipated to be under construction within the time period of the contract unless otherwise indicated.

Project 1003-10-84, 1005-10-76, 1005-11-71
These projects involve the reconstruction of northbound and southbound IH 39/90 from STH 11 to USH 14 and construction of a Park & Ride.

Project 1003-11-72, 1005-11-70 and 1007-11-83
These projects involves vegetation mitigation along IH 39/90 from Stateline Road to the Union Pacific Railroad. Coordination with these projects will be required for the placement of vegetation mitigation.

Project 1005-10-71
This project involves reconstructing the northbound and southbound bridges carrying IH 39/90 traffic over the Rock River.

Project 1005-10-72
This project involves the reconstruction of northbound and southbound IH 39/90 from Knutson Road to the north Rock County Line.

Project 1005-10-77
This project involves the reconstruction of IH 39/90 from USH 14 to Kennedy Road. Coordination with this project will be required for traffic control staging.

11. Construction Over or Adjacent to Navigable Waters.

Add the following to standard spec 107.19:

Turtle Creek is classified as a navigable waterway.
107-060 (20150630)

12. Erosion Control.

Supplement standard spec 107.20 with the following:

Unless otherwise directed by the engineer at the end of each day, drive a tracked vehicle up and down all untracked or newly graded slopes to reduce the erosive potential of the slopes. The tracks shall be roughly perpendicular to the direction of storm water runoff flow down the slopes. Upslope tracking is incidental to the cost of grading.

Detail each construction phase per year; include plans for staging large fills and detailed plans for placing temporary and permanent erosion control items to provide for winterization of the project.

Delete the last sentence of standard spec 107.20(7) and replace it with the following:

Provide the permanent erosion control measures immediately after performing grading operations, unless temporary erosion control measures are specified or authorized by the engineer.

13. Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting Jennifer Grimes at (608) 884-1147, jennifer.grimes@dot.wi.gov.
107-054 (20080901)

14. Erosion Control Structures.

Within seven calendar days after the commencement of work on the bridge superstructure, place all permanent erosion control devices, including riprap, erosion mat, ditch checks, seed, fertilizer, mulch, soil stabilizer, or any other item required by the contract or deemed necessary by the engineer. These devices shall be in place in the area under the bridge and on both sides of the roadway, from the waterway to a point 100-feet behind the backwall of the abutment. Within said limits, place these devices to a height equivalent to the calculated water elevation resulting from a storm that occurs on the average of once every two years (Q2) as shown on the plan, or as directed by the engineer. Prior to initial construction operations, place turbidity barriers, silt screens, and other temporary erosion control measures as shown on the plans, and remove them after the permanent erosion control devices are in place unless directed otherwise by the engineer.

In the event that construction activity does not disturb the existing ground below the Q2 elevation, the above timing requirements for permanent erosion control shall be waived.
107-070 (20030820)

15. Design Model Data.

The department will provide design model data for projects 1003-10-84 and 1005-10-76. The data provided is for the bidder's general knowledge only and is not a part of the contract. The department assumes no responsibility for discrepancies between the data provided and the contract documents.

The department will provide the following design model data before the project let date, files are available for download at the following location:

http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/prelim-plan-sw.aspx

The pre-let design model data consists of the following:

1. Field Control data, LandXML v1.2 file
2. Reference line alignments and proposed profile information, LandXML v1.2 file
3. Surface models in LandXML v1.2, and in AutoCAD DWG files containing 3D face objects representing surface TIN triangles of surface models as follows:
    a. Existing ground surface
    b. Ultimate top surface
        i. Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts.
        ii. Top of shoulder and top of pavement within the roadway subgrade.
    c. Ultimate datum surface
        i. Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts.
        ii. Subgrade surface within the roadway subgrade shoulder points.
    d. Ultimate top of subbase surface
    e. Ultimate base course surface
4. Right of Way in LandXML v1.2 files right-of-way and easement line as alignments.
5. Slope stake report
6. Surface Model outer boundaries, 3D in AutoCAD DWG file
7. Superelevation transition information in a comma separated value (csv) text file.
8. Proposed roadway features, 2D in AutoCAD DWG files
9. Existing topographic mapping, 2D in AutoCAD DWG files
10. Metadata information

Upon request, the department will provide the following design model data within 4 weeks of the request.

The post-let design model data consists of the following:

1. Surface models in LandXML v1.2, and in AutoCAD DWG files containing 3D face objects representing surface TIN triangles of surface models as follows:
    a. Ultimate pavement surface, post let delivery upon request only
2. All proposed surface model longitudinal breaklines, 3D in AutoCAD DWG file.

(3/29/2017)

16. Contract Award and Execution.

Supplement standard spec 103 as follows:

103.9 Mobilization Workshops

103.9.1 Workshop Schedule

After contract award, attend the following workshops. Each workshop is described below and will include but not be limited to the topics outlined below.

Workshop	Timeframe
Initial Work Plan (IWP)	Prior to Notice to Proceed (NTP)
Cost Reduction Incentive & Submittals	Prior to preconstruction meeting
Utility Coordination	Prior to preconstruction meeting
Baseline CPM Progress Schedule	After NTP & submittal of Baseline CPM Progress Schedule
Work Force Opportunities	Day of preconstruction meeting

The workshop dates will be scheduled by the engineer after contract award. The engineer may modify the original workshop schedule to ensure attendance by the necessary department and contractor personnel. Workshops may be scheduled earlier than specified if agreed to by all parties. Workshops may be deleted and/or combined depending on the complexity and requirements of the project.

103.9.2 Workshops
103.9.2.1 Initial Work Plan
103.9.2.1.1 General
The Initial Work Plan workshop will provide a forum to discuss and answer questions relative to the proposal, bid schedule, and other questions in the Project Questionnaire described in standard spec 103.9.2.1.2. The Initial Work Plan Workshop will include:

- Contractor responses to the attached Project Questionnaire.
- Department presentation of the use of CPM scheduling on the project.
- Contractor presentation of the conceptual work plan for the project.
- Department and contractor discussion of the level of detail and features in the Initial Work Plan Schedule and the Baseline CPM Progress Schedule.

103.9.2.1.2 Project Questionnaire
Provide the following information in the order shown below. This information will constitute the "Project Questionnaire."

General Information
If a Joint Venture, provide information for each member of the Joint Venture.

1. Provide the following information about the company:

- Firm Name
- Address
- Telephone and facsimile numbers; e-mail address

- Contracting Specialties
- Years performing work in contracting specialties
- Geographic areas served
- Total Management Employees and years of service
- Project Managers
- General Superintendents
- Craft Superintendents
- Engineers
- Estimators
- CPM Schedulers

Construction Engineering

- Provide/attach a copy of your Construction Project Manager's resume indicating the manager's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).
- Provide (if applicable) your third-party construction engineering firms.
- Provide plan for Construction surveying.

Subcontractors

- Attach the list of all subcontractors that are intended for this project and the items of work they shall perform.

Permanent Material Suppliers

- Attach the list of all permanent material suppliers that are intended for the project.

Quality Control (where applicable)

- Provide the name of your Construction Quality Control firm and qualifications indicating the firms' experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

- Provide/attach a copy of your Construction Quality Control Manager's resume indicating the manager's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

- List the major elements and/or Table of Contents of your Construction Quality Management Program.

- Provide the name of your Independent Quality Control Testing firm (Construction Quality Control Lab) and qualifications indicating the firm's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

Organization Chart

- Provide a functional and personnel Organization Chart showing the authority and responsibilities of each individual identified.

Work Rules

- Provide the plan for hours per day, days per week, and number of shifts for key elements of work; i.e. sewer tunnels, retaining wall construction, roadway excavation, bridge structures, and roadway structural section activities.

Maintenance of Traffic

- Provide the name of your Traffic Control Manager and qualifications indicating the firm's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

- Attach a copy of your Preliminary Schedule indicating your approach to achieving the substantial completion schedule.

- Include an outline of your approach to the maintenance of traffic and how you shall stage the construction to meet the substantial completion schedule including planned locations for local street and freeway access into and out of the work zones for each stage of construction.

Construction

- Provide the approach (resources, equipment, suppliers, number of crews, and where required ground support systems) for the following activities:

- Retaining wall construction by type of work

- Bridge demolition

- Roadway structural section
- Roadway excavation
- Underground construction
- Office and yard facilities

103.9.2.2 Cost Reduction Incentives & Submittals

The Cost Reduction Incentive (CRI) & Submittals workshop will have two primary topics outlined below:

Cost Reduction Incentives

Identify value enhancing opportunities and consider modifications to the plans and specifications that will reduce either the total cost, time of construction or traffic congestion, without impairing, in any manner, the essential functions or characteristics of the project, including, but not limited to, service life, economy of operation, ease of maintenance, benefits to the traveling public, desired appearance, or design and safety standards.

Submit recommendations resulting from the workshop for approval by the engineer as cost reduction incentive proposals in conformance with the provisions in standard spec 104.10 "Cost Reduction Incentive."

The department and the contractor may be able to complete the CRI Concept process, as specified in standard spec 104.10.2, during the CRI workshop.

Submit CRIs after the CRI workshops that were not introduced at the CRI workshop.

Submittals

The Submittals Workshop will identify the key required submittals for the project, categorize submittals into functional areas, and develop a schedule for submittals, submittal reviews, and material fabrications and deliveries. The workshop participants will at a minimum:

i. Review the project special provisions.

ii. Categorize submittals into functional areas including but not limited to:

- MSE Retaining Walls
- Temporary Shoring
- Falsework and Formwork
- Girder Shop Drawings, Fabrication, and Delivery Dates

- Steel Transportation, Delivery, and Erection
- Structure Demolition Plans
- Pile Hammers and High Capacity Piling
- Concrete/ Asphalt
- Materials
- ITS / Lighting
- Traffic Signals
- Sanitary Sewer and Water
- Permits

1. Develop a schedule for submittals. Submittal schedule data shall be incorporated into CPM progress schedule to reflect submittal preparation durations and dates, submittal approval durations and dates, and material fabrication periods with forecasted delivery dates. Reference Baseline CPM Progress Schedule in these special provisions.

103.9.2.3 Utility Coordination

The Utility Coordination Workshop will define the scope and schedule of utility relocation work and the respective roles and responsibilities of the project team.

1. At a minimum, the following key personnel will attend the Utility Coordination Meeting.

- Department's Utility Coordinator
- Contractor's Project Manager, Foreman, Supervisor
- Designer Team's Utility Coordinator
- Key Utility Company Representative(s)

2. At a minimum, the Utility Coordination Meeting will include a review of the following:

- Summary of all required utility relocations on the project
- Special provisions addressing utility work

- Sharing of contact information
- Scheduling of work for utility relocation(s) including critical milestones and staging for the work
- Contractor's work schedule and anticipated conflicts with the utility's construction schedule.

103.9.2.4 Baseline CPM Scheduling

At the Baseline CPM Scheduling workshop, provide a presentation of the Baseline CPM Schedule. In the presentation, include a discussion of the anticipated fabrication and delivery durations for long lead material procurements, construction staging and sequencing of the work, understanding of traffic phasing, and application of labor and equipment resources to the work. Address comments raised in the engineer's review.

103.9.2.5 Work Force Opportunities

The Work Force Opportunities workshop will provide a venue for contractors to have meaningful dialogue with TrANS providers regarding the hiring of TrANS graduates. For the prime contractor and the subcontractors, provide staff with hiring authority to participate in a job-matching session during this workshop. The workshop will take place on the same day and in the same location as the pre-construction meeting. The workshop participants will at a minimum:

1. Review contractor hiring processes for general labor positions.
2. Review and listen to presentation provided by TrANS providers regarding the training program including details regarding how contractors can hire TrANS graduates.
3. Review TrANS graduate availability for working on project.
4. Meet one-on-one for at least two minutes with each TrANS graduate in attendance at the meeting.

(1/5/2017)

17. Timely Decision Making Manual.

Use the Timely Decision Making Manual (TDM) on this contract. Coordinate with the department to modify the various published tools as necessary to meet the particular project needs and determine how to implement those tools under the contract. Ensure the full

participation of the contractor and its principal subcontractors throughout the term of the contract.

Forms and associated guidance are published in the TDM available at the department's Highway Construction Contract Information (HCCI) web site at:

Timely Decision Making Manual (TDM)

105-005 (20151210)

18. Notice to Contractor – Construction Safety.

Add the following to standard spec 107:

Description

This specification describes minimum occupational safety and health requirements for the prime contractor and their subcontractors performing work on this project. The fundamental objective of these requirements is to eliminate construction related injuries and incidents so that their associated impacts to workers and the public, budgets and schedules are avoided or minimized.

Definitions

Certified Crane Operator. To be certified a crane operator one must pass both written and practical tests offered by a nationally accredited testing organization, such as the National Commission for the Certification of Crane Operators (NCCCO) or the Operating engineers Certification Program (OECP).

Competent Person. One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Critical Lift. A critical lift applies to, but is not limited to the following: any crane lift or hoisting operation that exceeds 75 percent of the rated capacity of the crane, requires the use of more than one crane or hoisting device, involves barge-mounted cranes, where the center of gravity could change, lifts where existing outriggers cannot be fully extended due to site constraints, lifts involving multiple lift rigging assemblies or other non-routine/difficult rigging arrangements.

Project Safety Officer (PSO). The person or persons designated by the department to coordinate implementation of a construction safety management system, including risk assessment, training, evaluating effectiveness, corrective/preventive action, and management review.

Qualified Person. One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, the work, or the project.

Safety Representative (SR). A person designated by the contractor to develop and implement the company's health and safety plan, assess job hazards, and identify and carry out corrective and preventive actions.

General Requirements
Notify the department immediately of any agency compliance inspections, including but not limited to the Occupational Safety and Health Administration (OSHA).

Report all project-related fatalities and OSHA-recordable injuries and illnesses that result in inpatient hospitalizations within 8 hours to the Project Safety Officer (PSO). Report all other project-related OSHA-recordable injuries and illnesses monthly to the PSO.

Safety Representative Requirements
Provide at least one Safety Representative (SR). Each SR shall perform inspections, safety observations and other safety-related duties on-site on a weekly basis, at a minimum. Provide an alternate SR in the event of illness or other unforeseen circumstances.

Each SR and alternate SR shall have training, knowledge and experience in construction safety and health, including but not limited to a current OSHA 10-hour Occupational Safety and Health Training Course in Construction Safety and Health. Provide evidence of SR certifications, qualifications and training to the PSO.

Each SR and alternate SR shall attend a 2-hour Construction Safety Awareness Training provided by the department at the beginning of the project and at least once every two years. The SR shall communicate and distribute materials provided in the 2-hour Construction Safety Awareness Training to their site workers prior to starting site construction activities.

Requirements for Construction Health and Safety Programs
In addition to implementing programs to meet the requirements of OSHA Construction Safety and Health standards, develop a written safety plan for the work to be performed. Note: General guidance is provided in Section 1-35.1.2 of the Construction and Materials Manual.

Traffic Control and Vehicle Collision Prevention/Risk Reduction
All vehicles and mobile equipment shall use high-intensity rotating, flashing, oscillating, or strobe lights according to Section 6G.02 of the Manual of Uniform Traffic Control Devices (FHWA, 2009).

Provide crash cushions or truck (or trailer)-mounted attenuators (TMAs) on shadow vehicles to protect workers, vehicles, and mobile equipment from vehicle collisions according to the Manual of Uniform Traffic Control Devices (FHWA, 2009, Section 6F.86). Coordinate with the engineer at least 72 hours before placing a TMA in service.

Personal Protective Equipment (PPE)
Minimum Requirement Personal Protective Equipment (PPE) to be worn in Construction Work Areas:

ASTM F2413-11 safety-toed boots rated for impact and puncture resistance (PR) shall be worn.

ANSI Z-87+ impact-resistant safety glasses with sideshields shall be worn. Requirements for faceshields, goggles, welding shades, etc. shall be determined by the SR.

ANSI Z-89.1 Class G or E hard hats where there is potential for impact or injury to the head.

Daytime Work: ANSI/ISEA 107-2004 Class 2 or 3 high visibility vests at all times and Type E pants for flaggers and other personnel working on the traffic side of concrete barriers (yellow/lime).

Nighttime Work: ANSI/ISEA 107-2004 Class 2 or 3 retro-reflective safety vests (yellow/lime) and Type E pants (Type 3 ensemble) and a hard-hat-mounted LED light ("miner's lamp").

Hearing protection shall be used, if the work site noise exceeds 90 decibels (dBA), as 8-hour average exposure measurements. [29 CFR 1926.52 and .101]

Walking and Working Surfaces
Keep all accessible work areas and passageways free from debris, obstructions and other slip, trip and fall hazards.

Excessive Driving Hours/Extended Work Shifts
Distribute a one-page handout to each truck driver accessing the work zone to increase their awareness of hazards related to extended work shifts. The department will make the handout available electronically.

Cranes and Hoists.
Ensure that all crane operators have been certified by the National Commission for the Certification of Crane Operators (NCCCO) or by the Operating engineer Certification Program (OECP) if they will be operating a 10-Ton or greater capacity crane or if they are involved in critical lifts.

Provide critical lift plans to the department at least 72 hours prior to a critical lift. The contractor is responsible for all submittals, assumptions, calculations, and conclusions. Have a professional engineer, registered in the state of Wisconsin and knowledgeable of the specific site conditions and requirements, verify the adequacy of the design. Submit one copy of each design, signed and sealed by the same professional engineer verifying the design, to the engineer.

Crane operators shall safely terminate hoisting operations in the event of wind conditions that exceed the original equipment manufacturer's specifications for safe operation.

Work near American Transmission Company (ATC) 69 kV, 138 kV, and 345 kV Overhead Electric Lines

WisDOT is aware of possible induced voltage on metal objects from overhead 69 kV, 138 kV, and 345 kV electric lines. WisDOT staff are utilizing personal protective equipment (PPE) in the form of insulated gloves when inspecting or working on metal objects in the vicinity of these lines. Please use PPE according to your company policies and OSHA requirements. Consult the current version of the ATC guidance document "Induced Voltage and Nuisance Shocks" (ATC, 2013) for best practices to prevent nuisance shocks when working around these overhead lines.

Documentation and Records

Maintain documents and records and ensure that they are readily available upon request. At a minimum this includes:

a. Written Safety Plan for Work Activities to be Performed

b. Names of Safety Representatives and copies of their OSHA 10-Hour Occupational Safety and Health Training Course in Construction Safety and Health training cards.

c. Names of Competent Persons and Qualified Persons (if required by OSHA for the work performed).

d. Reports of inspections of the job sites, materials, and equipment [29 CFR 1926.20(b)(2)].

e. Documentation that the SR has communicated and distributed materials from the Construction Safety Awareness Training to their site workers. At a minimum this will include a dated sign-in sheet with the names and signatures of the workers trained. The department will provide a sign-in sheet template electronically.

f. Project site OSHA 300 Log (no worker names)[29 CFR 1904.29]

g. Project site OSHA 301 Incident Report (no worker names) [29 CFR 1904.29]

h. Hazard Communication Program [29 CFR 1926.59]

    i. Hazardous Chemical Inventory,
    ii. Location of Safety Data Sheets (SDSs)
    iii. Hazard Warning Symbols
    iv. Information and training requirements.

i. Exposure Monitoring results (if monitoring is required under a specific OSHA standard-no worker names)

j. Crane operator certifications (if applicable)

k. Fall Protection Plan (if applicable) [29 CFR 1926.500-.503 and 1926.104]

l. Confined Space Entry Procedures (if applicable). [29 CFR 1926.1200-.1213]

m. Lockout/Tagout Procedures (if applicable). [29 CFR 1926.417 and .702]

n. Respiratory Protection Program (if applicable) [29 CFR 1926.103 and 1910.134(c)]

o. Emergency Action Plan [29 CFR 1926.35]

i. Emergency escape procedures and emergency escape route assignments

ii. Procedures to be followed by employees who remain to operate critical equipment before they evacuate

iii. Procedures to account for all employees after emergency evacuation has been completed

iv. Rescue and medical duties for those employees who are to perform them;

- First Aid and Medical Treatment Procedures [29 CFR 1926.50]
- Equipment and Supplies
- Names of persons certified in first aid
- Location of the nearest medical facility.

v. The preferred means of reporting fires and other emergencies

vi. Prime contractor's alarm system

vii. Names or regular job titles of persons who can be contacted for further information or explanation of duties under the plan.

p. Fire Protection Program (if applicable) [29 CFR 1926.150]

q. Fire Prevention Plan and Hot Work Permit procedures (if applicable) [29CFR 1926.352]

(2/21/17)

19. Notice to Contractor – Revisions to Traffic Control Plans.

The traffic control and staging plans/details contained within the project plans have been developed from an FHWA approved Transportation Management Plan (TMP). According to TMP requirements, the DEPARTMENT shall revise the TMP during construction if conditions warrant. This specification shall be followed to obtain concurrence for implementation of any proposed changes to construction phasing/staging that will affect the traffic patterns depicted in the plans.

Submit traffic control revision(s) to the engineer a minimum of 21 calendar days prior to the anticipated implementation of the proposed change(s). Include the following:

Detail on existing or new project plan sheets that show:

- The revised traffic pattern, widths, grades, temporary pavement, signs, traffic control devices, pavement marking, flaggers, time of day, width restrictions, and any other details required to convey a new or revised traffic control design.

- Erosion control measures required, including the location(s) of any tracking pad(s).

Written summary of proposed traffic control change including:

- Benefits to implementing the change (i.e., cost or time savings, ease of construction, increased safety to workers, and the motoring public).

- Timeframe to construct, duration in place, and time to remove.

The request will be reviewed, and if warranted, concurred with designated I-39/90 Corridor Management Team (CMT) staff, the engineer, and WisDOT Central Office Field Construction Coordinator (if warranted). If the request is approved, it will be forwarded to FHWA for review and processing a minimum of 7 calendar days in advance of the contractor's anticipated implementation.

The engineer shall correspond with the following FHWA and department staff to obtain concurrence:

- Anna Varney, FHWA, Anna.Varney@dot.gov

- Rich Cannon, I-39 CMT Traffic, Richard.Cannon@dot.wi.gov

- Jeff Gustafson, I-39 CMT Traffic, Jeffrey.Gustafson@dot.wi.gov

(10/3/2016)

20. Notice to Contractor – New or Revised Temporary Construction Access to I-39/90.

Traffic control and staging plans/details contained within the project plans shall be followed by the contractor. The contractor's use of any construction access point(s) to I-39/90 which is/are not shown in the plans is prohibited without the prior written approval from FHWA and the department. To obtain written approval for temporary access to I-39/90 during construction, the contractor shall provide the following:

Details on existing or new project plan sheets that show:

- The location, dimensions, grades, and slopes for any new/revised temporary construction access point(s) to I-39/90.

- Traffic control measures that are required to manage this access change.

- Traffic control measures that are required to secure/close any new/revised construction access points when not in use.

- Erosion control measures required to manage this change, including the location(s) of any tracking pad(s).

Written summary of proposed temporary construction access change including:

- Timeframe to construct, duration in place, and time to remove.

- Cost of proposed temporary access including grading, traffic control, erosion control, and all other items and incidentals to implement and remove the access.

- Benefits in implementing the change (i.e., cost or time savings, ease of construction, increased safety to workers, and the motoring public).

- Signed Construction Permit if temporary access traverses private property.

The above information shall be provided to the engineer a minimum of 14 calendar days prior to the contractor's anticipated implementation of the new/revised temporary construction access to I-39/90. The request will be reviewed, and if warranted, concurred with designated I-39/90 CMT Traffic and Project staff, the engineer, and WisDOT Central Office Field Construction Coordinator (if warranted). If these parties concur with the request, it will be forwarded to FHWA for review and processing a minimum of 7 calendar days in advance of the contractor's anticipated implementation.

The engineer shall correspond with the following FHWA and department staff for concurrence:

- Anna Varney, FHWA, Anna.Varney@dot.gov

- Rich Cannon, I-39 CMT Traffic, Richard.Cannon@dot.wi.gov

- Jeff Gustafson, I-39 CMT Traffic, Jeffrey.Gustafson@dot.wi.gov

In the event of an emergency situation the above review process, including the extent of information required to be submitted and approval timeframes, can be modified if agreed upon by all parties.
(10/3/2016)

21. Notice to Contractor, Notification of Demolition and/or Renovation No Asbestos Found.

Structure B-53-42/43 (Turtle Creek)
John Roelke, License Number AII-119523, inspected the referenced structures for asbestos on November 15, 2013. No regulated Asbestos Containing Material (RACM) was found on

this structure. A copy of the inspection report is available from: Jennifer Grimes, WisDOT SW Region Environmental Coordinator, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147, Jennifer.Grimes@dot.wi.gov .

Structure B-53-39/40 (Townline Road)
John Roelke, License Number AII-119523, inspected the referenced structures for asbestos on November 15, 2013. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes, WisDOT SW Region Environmental Coordinator, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147, Jennifer.Grimes@dot.wi.gov .

Structure B-53-36/37 (UPRR)
John Roelke, License Number AII-119523, inspected the referenced structures for asbestos on November 15, 2013. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes, WisDOT SW Region Environmental Coordinator, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147, Jennifer.Grimes@dot.wi.gov .

Structure B-53-56(Branch Rock River)
John Roelke, License Number AII-119523, inspected the referenced structures for asbestos on November 15, 2013. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes, WisDOT SW Region Environmental Coordinator, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147, Jennifer.Grimes@dot.wi.gov .

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days prior to beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Jennifer Grimes and DOT BTS-ESS attn: Hazardous Materials Specialist PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

Use the following information to complete WisDNR form 4500-113:

- Site Name: B-53-42, IH 90 eastbound over Turtle Creek
- Site Address: 0.4 miles east of CTH S
- Ownership Information: WisDOT Transportation SW Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Jamie Grainger
- Phone: (608) 884-1173
- Age: 58 years old
- Area: 11,220 SF of deck

- Site Name: B-53-43, IH 90 westbound over Turtle Creek
- Site Address: 0.4 miles east of CTH S

- Ownership Information: WisDOT Transportation SW Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Jamie Grainger
- Phone: (608) 884-1173
- Age: 58 years old
- Area: 11,220 SF of deck

- Site Name: B-53-39, IH 90 eastbound over Townline Road
- Site Address: 1.7 miles east of CTH S
- Ownership Information: WisDOT Transportation SW Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Jamie Grainger
- Phone: (608) 884-1173
- Age: 58 years old
- Area: 6,100 SF of deck

- Site Name: B-53-40, IH 90 westbound over Townline Road
- Site Address: 1.7 miles east of CTH S
- Ownership Information: WisDOT Transportation SW Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Jamie Grainger
- Phone: (608) 884-1173
- Age: 58 years old
- Area: 6,100 SF of deck

- Site Name: B-53-36, IH 90 southbound over UPRR

- Site Address: 3.3 miles south of US-14

- Ownership Information: WisDOT Transportation SW Region, 2101 Wright Street, Madison, WI 53704-2583

- Contact: Jamie Grainger

- Phone: (608) 884-1173

- Age: 58 years old

- Area: 15,233 S.F.

- Site Name: B-53-37, IH 90 northbound over UPRR

- Site Address: 3.3 miles south of US-14

- Ownership Information: WisDOT Transportation SW Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Jamie Grainger
- Phone: (608) 884-1173
- Age: 14 years old. This structure was constructed in 2003.
- Area: 13,759 S.F. of deck

- Site Name: Structure B-53-0056, IH 39 over Branch of Rock River.
- Site Address: S20, T02N, R13E, Lat 42.619 deg, Long. 88.983 deg
- Ownership Information: WisDOT Transportation SW Region, 2101 Wright Street, Madison, WI 53704-2583
- Contact: Jamie Grainger
- Phone: (608) 884-1173
- Age: 59 years old. This structure was constructed in 1958.

Insert the following paragraph in Section 6.g.:

- If asbestos not previously identified is found or previously non-friable asbestos becomes crumbled, pulverized, or reduced to a powder, stop work immediately, notify the engineer, and the engineer will notify the department's Bureau of Technical Services at (608) 266-1476 for an emergency response according to standard spec 107.24. Keep material wet until it is abated or until it is determined to be non-asbestos containing material.

107-125 (20120615)

22. Notice to Contractor – Airport Operating Restrictions – Site Specific.

General Restrictions

A temporary permit is not required from the Federal Aviation Administration (FAA) for the permanent or temporary installations that are included in the plans NOT LISTED BELOW UNDER 'SITE SPECIFIC RESTRICTIONS' as long as the contractor uses equipment that will not exceed 200 feet above ground level. The contractor shall submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the FAA a minimum of 45 days before beginning construction operations that propose to use equipment that will exceed 200 feet above ground level.

If required, the FAA will return FAA Form 7460-2, Notice of Actual Construction or Alteration, with a determination. The contractor shall complete and send FAA Form 7460-2, Part 1 to the FAA at least 48 hours prior to starting the actual construction or

alteration of a structure. Additionally, the contractor shall submit Part 2 no later than five days after the structure has reached its greatest height.

Contact Justin Hetland, Airspace Safety Program Manager, Bureau of Aeronautics at (608) 267-5018 (Justin.Hetland@dot.wi.gov) with any questions. Refer to the following FAA website for instructions to complete the form and the required information.

http://oeaaa.faa.gov/oeaaa/external/portal.jsp.

(1/5/2015)

Site Specific Restriction

The Federal Aviation Administration (FAA) has height restrictions surrounding select airports. The department has obtained Temporary Determination of No Hazard to Air Navigation for all temporary structure (i.e. crane) erections associated with bridge, noise barrier, and retaining wall construction at the following location. A copy of the determination can be obtained through the engineer.

Project ID	Structure	Location	Latitude	Longitude	Heights	Issue Date	Expiration Date (Contractor to request extension during project duration)	Aeronautical Study No.
1003-10-81	Crane (Temporary for B-53-314/315)	Turtle Creek Bridges (NB and SB)	42-33-55 N NAD 83	88-58-46 W	160 feet AGL 969 feet AMSL	1/30/2017	7/30/2018	2017-AGL-690-OE
1003-10-81	Crane (Temporary for B-53-317/318)	Townline Bridges (NB and SB)	42-35-02 N NAD 83	88-58-04 W	160 feet AGL 990 feet AMSL	1/30/2017	7/30/2018	2017-AGL-691-OE
1003-10-76	Bucket Truck (Type 1 sign)	IH-39 NB	42-36-39.56 N	88-58-54.87 W	35 feet AGL 829 feet AMSL	2/16/2017	8/16/2018	2017-AGL-1881-OE
1003-10-76	Bucket Truck (Type 1 sign)	IH-39 NB	42-36-50.41 N	88-58-55.05 W	45 feet AGL 826 feet AMSL	2/16/2017	8/16/2018	2017-AGL-1882-OE
1003-10-76	Bucket Truck (Type 1 sign)	IH-39 NB	42-36-58.32 N	88-58-55.30 W	30 feet AGL 822 feet AMSL	2/16/2017	8/16/2018	2017-AGL-1883-OE
1003-10-76	Bucket Truck (Type 1 sign)	IH-39 NB	42-37-6.17 N	88-58-55.53 W	40 feet AGL 817 feet AMSL	2/16/2017	8/16/2018	2017-AGL-1884-OE
1003-10-76	Crane (Temporary for B-53-320)	Box Culvert (NB and SB)	42-37-07.55 N	88-58-56.39 W	105 feet AGL 826 feet AMSL	2/16/2017	8/16/2018	2017-AGL-1885-OE
1003-10-76	Bucket Truck (Type 1 sign)	IH-39 NB	42-37-07.55 N	88-58-55.96 W	50 feet AGL 832 feet AMSL	2/16/2017	8/16/2018	2017-AGL-1886-OE
1003-10-76	Crane (Temporary for B-53-321/322)	UPRR Bridges (NB and SB)	42-37-23.48 N	88-58-57.17 W	165 feet AGL 856	2/16/2017	8/16/2018	2017-AGL-1887-OE

					feet AMSL			
1003-10-76	Crane (Temporary for S-53-104)	IH-39 NB	42-37-38.95 N	88-58-56.20 W	90 feet AGL 835 feet AMSL	2/16/2017	8/16/2018	2017-AGL-1888-OE

As a condition of the Determinations, cranes shall be marked and/or lit according to FAA Advisory Circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, flags/red lights – Chapters 3 (Marked), 4, 5 (Red) and 12.

For all other locations not listed under the lighting requirements above, marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, the contractor is encouraged to install and maintain it according to FAA Advisory Circular 70/7460-1 K Change 2.

Notify the manager of SOUTHERN WISCONSIN RGNL at (608) 757-5768 at least three business days prior to any temporary structure being erected and again when the temporary structure is removed from the site.

Lower any temporary structure (i.e. crane) to the ground when not in use.

It is required that the manager of JVL Air Traffic Control Tower at (608) 754-2611 be notified at least 5 business days prior to any temporary structure being erected and again when any temporary structure is removed from the site. Additionally, please provide contact information for the onsite operator in the event that Air Traffic Control requires the temporary structure to be lowered immediately.

Any failure or malfunction that lasts more than 30 minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867, so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

Any height of a temporary structure exceeding above ground level (AGL) or above mean sea level (AMSL), as listed in the temporary determination, will result in a substantial adverse effect and will warrant a Determination of Hazard to Air Navigation.

The determination expires unless extended, revised or terminated by the issuing FAA office. If an extension is needed, the contractor must request an extension to the effective period of the determination. The request must be postmarked or delivered, to the office below, at least 30 days prior to the expiration date:

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

For questions on extensions to the effective period of the determinations, contact the FAA office at (847) 294-7575 and reference the Aeronautical Study Number.

Any changes in coordinates and/or heights will void the determination. Any future construction or alteration, including increase to height, requires a separate notice to the FAA.

Determinations include temporary construction equipment such as cranes, derricks, and other equipment, which may be used during actual construction. Equipment shall not exceed the overall heights as indicated in the determination. The contractor must request separate notice to the FAA if equipment has a height greater than the determination.

The contractor must copy the engineer on any correspondence with the FAA.

A determination concerns the effect of temporary structures on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body. (1/5/2015)

23. Optimized Aggregate Gradation and Concrete Mixtures.

A Description
This special provision describes optimized aggregate gradation, optional optimized mixture designs, and associated additional requirements for class 1 concrete used in concrete pavements. Conform to standard specification part 7 and as follows:

Optimized Aggregate Gradation
A Job Mix Formula (JMF) contains all of the following:

1. Proportions for each aggregate fraction conforming to Table 1.

2. Individual gradations for each aggregate fraction.

3. Composite gradation of the combined aggregates including working ranges on each sieve according to Table 2.

4. Submit the target JMF and aggregate production gradation test results to the engineer for review 10 business days before initial concrete placement.

TABLE 1 TARANTULA CURVE GRADATION BAND

SIEVE SIZES	PERCENT RETAINED
2 in.	0
1 1/2 in.	≤5
1 in.	<16
3/4 in.	<20
1/2 in.	4-20
3/8 in.	4-20
No. 4	4-20
No. 8[1]	<12
No. 16[1]	<12
No. 30[1] [2]	4-20
No. 50[2]	4-20
No. 100[2]	≤10
No. 200[2]	≤2.3

*[1]*Minimum of 15% retained on the sum of the #8, #16, and #30 sieves.
*[2]*Conform to 24-34% retained of fine sand on the #30-200 sieves.

TABLE 2 JMF WORKING RANGE

SIEVE SIZES	WORKING RANGE[1] (PERCENT)
2 in.	±5
1 1/2 in.	±5
1 in.	±5
3/4 in.	±5
1/2 in.	±5
3/8 in.	±5
No. 4	±5
No. 8	±4
No. 16	±4
No. 30	±4
No. 50	±3
No. 100	±2
No. 200	≤ 1.6

[1]Working range limits of composite gradation based on moving average of 4 tests.

Test each component aggregate once per 1,500 cubic yards during concrete production. Take samples by one of the following sampling methods:

1. At the belt leading to the weigh hopper.

2. Working face of the stock piles at the concrete plant if approved by the engineer.

The department will take independent QV samples using the same sampling method the contractor uses for QC sampling. QV samples may be taken by the contractor's QC personnel if witnessed by the department's QV personnel. The department will split each QV sample and retain half for all dispute resolutions. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.

If, during concrete production, the moving average of four for any sieve fall outside the allowable JMF working range do the following:

1. Notify the engineer of the test results within 1 business day from the time of sampling;

2. Make immediate adjustments to the JMF, within the limits specified in Table 3;

3. Review JMF adjustments with the engineer. Both the contractor and engineer will sign the adjusted JMF if the adjustments comply with Table 3.

4. If the moving average of four falls outside the adjusted allowable working range, stop production and provide a new mix design including JMF to the engineer.

TABLE 3 ALLOWABLE JMF ADJUSTMENTS

SIEVE SIZES	ALLOWABLE ADJUSTMENT (PERCENT)
≥ No. 4	±5
No. 8 – No. 30	±4
No. 50	±3
No. 100	±2

Dispute Resolution
The department will resolve disputes as specified in standard spec 106.3.4.3.5 using QV split samples.

Sublot and Lot Size
A sublot consists of up to 1,500 cubic yards. A lot consists of two sublots.

Optimized Concrete Mixtures
The contractor may use a reduced cementitious content for concrete pavement placed if the contractor does the following:

1. Use an optimized aggregate gradation as defined in this special provision.

2. Conform to the additional testing requirements for flexural strength as specified in the contract special provisions.

3. Submit aggregate gradation result records no more than two years old when developing the mix design.

4. Determine the volume of voids in the optimized aggregates using ASTM C29.

5. Download and follow the instructions tab of the Optimized Gradation and Mix Design Spreadsheet located at:

   http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx

6. Design an appropriate paste content based upon the Performance-based PCC Mix Design Guide located at:

   http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx

7. Provide a minimum Vpaste/Vvoids of 1.25. (Paste/Void ratio equals the volume of paste divided by the volume of voids.).

8. Evaluate workability of trial batches by following section 6.8 of AASHTO Draft Performance Engineered Concrete Pavement Mixtures Specifications located at:

   http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx

9. Submit trial batch workability results when submitting the mix design.

10. Submit the CP Tech center computer spreadsheet concrete mix design to the engineer for review at least three business days before producing concrete.

11. Provide a minimum cement content of 520 pounds per cubic yard, except if using type I, IL, or III cement in a mix where the geologic composition of the coarse aggregate is primarily igneous or metamorphic materials, provide a minimum cement content of 660 pounds per cubic yard.

12. The contractor may use class C fly ash or grade 100 or 120 slag as a partial replacement for cement. For binary mixes use up to 30% fly ash or slag. For ternary mixes use up to 30% fly ash plus slag in combination. Replacement values are in percent by weight of the total cementitious material in the mix.

13. See CMM 8-70.2.2.3 for additional guidance.

B (Vacant)

C (Vacant)

D (Vacant)

E (Vacant)

(1/31/17)

24. Clearing and Grubbing, Items 201.0105, 201.0120, 201.0205, and 201.0220.

Supplement standard spec 201.3 with the following:

Emerald Ash Borer (EAB)
The emerald ash borer (EAB) has resulted in a quarantine of ash trees (*Fraxinus, sp*) by the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) and the Wisconsin Department of Natural Resources (DNR).

Ash trees species attacked by emerald ash borer include the following:

- Green ash (F. pennsylvanica) is found throughout the state, but is most common in southern Wisconsin. It may form pure stands or grow in association with black ash, red maple, swamp white oak, and elm. It grows as an associate in upland hardwood stands, but is most common in and around stream banks, floodplains, and swamps.
- Black ash (F. nigra) is distributed over the entire state but is most frequently found in northern Wisconsin. It is most common in swamps, but is also found in other wet forest types.
- Blue ash (F. quadrangulata) is a threatened species that is currently found only at a few sites in Waukesha County. The species is at the edge of its range in Wisconsin, but is common in states farther south. The species is not of commercial importance. Blue ash twigs are 4-sided.
- White ash (F. americana) tends to occur primarily in upland forests, often with Acer saccharum.
- Includes all horticultural cultivars of these species.

(Note: blue ash twigs are 4-sided. All other Wisconsin ash trees have round stems.)

Mountain ash (Sorbus Americana and S. decora) is not a true ash and is not susceptible to EAB infestation.

The contractor shall be responsible for hiring a certified arborist to identify all ash trees that will be cleared and grubbed for the project. In addition, prior to scheduled clearing and grubbing activities, the arborist shall mark all ash trees with flagging tied around the trunk perimeter (florescent lime is suggested as it isn't identified with other project activities).

Follow and obey the following DATCP order:

ATCP 21.17 Emerald Ash Borer, Import Controls and Quarantine

1. Importing or moving regulated items from infested areas; prohibition.

Except as provided in sub. (3), no person may do any of the following:

a) Import a regulated item under sub. (2) into this state if that item originates from an emerald ash borer regulated area identified in 7CFR 301.53-3.

b) Move any regulated item under sub. (2) out of an emerald ash borer regulated area that is identified in 7CFR 301.53-3 and located in this state.

Note: the United States Department of Agriculture-Animal and Plant Health Inspection Service (USDA-APHIS) periodically updates the list of regulated areas in 7CFR 301.53-3. Subsection (1) applies to new regulated areas as those areas are identified in the CFR.

2. Regulated items.

The following are regulated items for purposes of sub. (2):

a) The emerald ash borer, Agrilus planipennis Fairmaire in any living stage.

b) Ash trees.

c) Ash limbs, branches, and roots.

d) Ash logs, slabs or untreated lumber with bark attached.

e) Cut firewood of all non-coniferous species.

f) Ash chips and ash bark fragments (both composted and uncomposted) larger than one inch in diameter.

g) Any other item or substance that may be designated as a regulated item if a DATCP pest control official determines that it presents a risk of spreading emerald ash borer and notifies the person in possession of the item or substance that it is subject to the restrictions of the regulations.

Regulatory Considerations
The quarantine means that ash wood products may not be transported out of the quarantined area.

Clearing and grubbing includes all ash trees that are to be removed from within the project footprint. If ash trees are identified within clearing and grubbing limits of the project, the following measures are required for disposal:
Chipped ash trees

1) May be left on site if used as landscape mulch within the project limits. If used as mulch on site, chips may not be applied at a depth greater than standard mulch applications as this will impede germination of seeded areas.

2) May be buried on site within the right-of-way according to standard spec 201.3 (14).

3) May be buried on adjacent properties to projects within the quarantined zone with prior approval of the engineer according to standard spec 201.3 (15).

4) May be trucked to a licensed landfill within the quarantined zone with the engineer's approval according to standard spec 201.3 (15).

25. Debris Containment Structure B-53-36, Item 203.0225.S.005; B-53-37, Item 203.0225.S.006.

A Description

This special provision describes providing a containment system to prevent debris from structure removal, reconstruction, or other construction operations from falling onto facilities located under the structure. Using this containment system does not relieve the contractor of requirements under standard spec 107.17 and standard spec 107.19 or requirements under a US Army Corps of Engineers Section 404 Permit.

B (Vacant)

C Construction

Prior to starting work, submit a debris containment plan to the engineer for review. Incorporate engineer-requested modifications. Do not start work over Turtle Creek or Townline Road or Union Pacific Railroad until the engineer approves the debris containment plan.

Maintain adequate protection throughout construction for people and property within the potential fall zone. Ensure that a containment system capable of protecting underlying facilities from falling construction debris is in place before beginning deck removal, parapet removal, or other operations that may generate debris.

At least 15 working days before conducting potential debris generating operations, contact the following owners or lessees:

1. Jamie Grainger
   WisDOT I-39/90 Construction Manager
   111 Interstate Blvd.
   Edgerton, WI 53534-9399
   (608) 884-1173
   jamie.grainger@dot.wi.gov

2. John Venice
   Union Pacific Railroad
   101 North Wacker Drive, Suite 1920
   Chicago, IL 60606
   (312) 777-2043
   jnvenice@up.com

D Measurement

The department will measure Debris Containment Structure (number) as a single lump sum unit of work for each structure, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
203.0225.S.005	Debris Containment Structure B-53-36	LS
203.0225.S.006	Debris Containment Structure B-53-37	LS

Payment is full compensation for furnishing, installing, maintaining, and removing a debris containment system.

203-010 (20080902)

26. Removing Old Structure Over Waterway Station 565+53.42, Item 203.0500.S.003.

Conform to standard spec 203 as modified in this special provision.

Add the following to standard spec 203:

203.3.6 Removals Over Waterways and Wetlands

203.3.6.1 Removing Old Structure Over Waterway

(1) Remove the existing Structure B-53-56 over the Branch Rock River conforming to the contractor's approved structure removal and clean-up plan. Remove all reinforcing steel, all concrete, and all other debris that falls into the waterway or wetland. Remove large pieces of the structure within 36 hours. The contractor may leave limited amounts of small concrete pieces scattered over the waterway floor or wetland only if the engineer allows.

(2) Submit a structure removal and clean-up plan as part of the erosion control implementation plan required under standard spec 107.20. Do not start work under the structure removal and clean-up plan without the department's written approval of the plan. Include the following information in the structure removal and clean-up plan:

1. Methods and schedule to remove the structure.
2. Methods to control potentially harmful environmental impacts.
3. Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require.
4. Methods for cleaning the waterway or wetlands.

(3) If stockpiling spoil material, place it on an upland site an adequate distance from the waterway, wetland, or any open water created by excavation. Install silt fence between the spoil pile and the waterway, wetland, or excavation site.

Add the following Removing Old Structure bid item to standard spec 203.5.1:

ITEM NUMBER	DESCRIPTION	UNIT

203.0500.S.003	Removing Old Structure Over Waterway Station 565+53.42	LS

stp-203-015 (20090105)

27. Removing Old Structure Over Waterway With Minimal Debris Station 369+90.72 'SB', Item 203.0600.S.001; Station 369+90.72 'NB', Item 203.0600.S.002.

Conform to standard spec 203 as modified in this special provision.

Add the following to standard spec 203:

203.3.6 Removals Over Waterways and Wetlands
203.3.6.2 Removing Old Structure Over Waterway with Minimal Debris

(1) Remove the existing Structure B-53-42 and B-53-43 over Turtle Creek in large sections and conforming to the contractor's approved structure removal and clean-up plan. During superstructure removal, prevent all large pieces and minimize the number of small pieces from entering the waterway or wetland. Remove all reinforcing steel, all concrete, and all other debris that falls into the waterway or wetland. The contractor may leave limited amounts of small concrete pieces scattered over the waterway floor or wetland only if the engineer allows.

(2) Submit a structure removal and clean-up plan as part of the erosion control implementation plan required under standard spec 107.20. Do not start work under the structure removal and clean-up plan without the department's written approval of the plan. Include the following information in the structure removal and clean-up plan:

- Methods and schedule to remove the structure.
- Methods to control potentially harmful environmental impacts.
- Methods for superstructure removal that prevent all large pieces and minimize the number of small pieces from entering the waterway or wetlands.
- Methods to control dust and contain slurry.
- Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require.
- Methods for cleaning the waterway or wetlands.

(3) If stockpiling spoil material, place it on an upland site an adequate distance from the waterway, wetland, or any open water created by excavation. Install silt fence between the spoil pile and the waterway, wetland, or excavation site.

Add the following Removing Old Structure bid item to standard spec 203.5.1:

ITEM NUMBER	DESCRIPTION	UNIT
203.0600.S.001	Removing Old Structure Over Waterway With Minimal Debris Station 369+90.72 'SB'	LS
203.0600.S.002	Removing Old Structure Over Waterway With	LS

203-020 (20080902)

28. Abandoning Sewer, Item 204.0291.S.

A Description
This special provision describes abandoning existing sewer by filling it with cellular concrete according to the pertinent requirements of standard spec 204 and standard spec 501, as shown in the plans, and as hereinafter provided.

B Materials
Provide cellular concrete meeting the following specifications: 1 part cement, 1 part fly ash, 8 parts sand, or an approved equal, and water. Provide cement meeting the requirements of standard spec 501.2.1 for Type 1 Portland Cement. Provide sand meeting the requirements of standard spec 501.2.5.3 Provide water meeting the requirements of standard spec 501.2.4.

C Construction
Fill the abandoned sewer pipe with cellular concrete as directed by the engineer. In the event that the sewer cannot be completely filled from existing manholes, tap the sewer where necessary and fill from these locations.

D Measurement
The department will measure Abandoning Sewer in volume by the cubic yard according to standard spec 109.1.3.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
204.0291.S	Abandoning Sewer	CY

Payment is full compensation for furnishing all materials and excavating and backfilling where necessary.
stp-204-050 (20080902)

29. Removing Apron Endwalls, Item 204.9060.S.005.

A Description
This special provision describes removing apron endwalls according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Apron Endwalls as each individual removing apron endwall, acceptably completed.

E Payment

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.005	Removing Apron Endwalls	EACH

Payment is full compensation for removing and disposing of each Apron Endwall.
204-025 (20150630)

30. Removing Cable Guard, Item 204.9090.S.006.

A Description
This special provision describes removing cable guard according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Removing Cable Guard in length by the linear foot, acceptably completed.

E Payment

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.006	Removing Cable Guard	LF

Payment is full compensation for removing and disposing of Cable Guard.
204-025 (20150630)

31. Removing Temporary Shoring Left In Place By Others, Item 204.9090.S.007.

A Description
This special provision describes removing temporary shoring left in place by others according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Removing Temporary Shoring Left In Place By Others in length by the linear foot, acceptably completed.

E Payment

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.007	Removing Temporary Shoring Left In Place By Others	LF

Payment is full compensation for removing and disposing of Temporary Shoring Left In Place By Others.
204-025 (20150630)

32. Apron Endwalls for Culvert Pipe Salvaged.

Supplement standard spec 524.5(3) with the following:

Payment for the Apron Endwalls for Culvert Pipe Salvaged bid items include any necessary cleaning and reinstalling of existing attached pipe grates and relocating existing culvert end markers.

33. Roadway Excavation.

Excavation of frozen ground directed by the engineer to maintain work as scheduled will be paid for as common excavation. Backfilling of these excavated areas will be paid for as either Roadway Embankment or Select Borrow as directed by the engineer. This does not relieve the contractor of their responsibility to protect the subgrade from further freezing of the soils prior to or after this excavation or the timely backfilling of any areas excavated due to frozen conditions.

Supplement standard spec 205.5.2(1) to include the following:

Provide the department with an earth flow diagram within 30 calendar days of receiving the contract Notice to Proceed.

Identify on the earth flow diagram, all excavation material within the project; material shrinkage and swell factors; acceptable on-site material available for use as embankment within the project; anticipated off-site material that will be required for use as embankment within the project (if applicable); and anticipated material to be disposed of off-site (if applicable). It is the sole responsibility of the contractor to prepare their individual investigation and testing program to establish material shrinkage and swell factors.

34. Borrow.

Replace standard spec 208.1(1) with the following:

This section describes constructing embankments and other portions of the work consistent with the earthwork summary and defines the contract requirements for embankment material if required by the plans or if the contractor elects to utilize off-site material to complete the roadway embankments.

Delete standard spec 208.2.2(2).

Supplement standard spec 208.3 to include the following:

The contractor shall be responsible for complying with all permit requirements in obtaining embankment materials.

Supplement standard spec 208.4 with the following:

The department will not measure embankment material from its source.

Supplement standard spec 208.5 with the following:

The department will not pay directly for work specified under this section pertaining to Borrow. This work is included in the Roadway Embankment bid item.
(5/31/2016)

35. Select Borrow, Item 208.1100.

Conform to the requirements of standard spec 208 and as hereinafter provided.

Materials
Furnish and use material that consists of granular material meeting the following requirements: Maximum particle size of 12 inches when measured from any face. The material passing the No. 4 sieve shall have a maximum of 15% by weight passing the No. 200 sieve.

As a contractor's option, the department will allow the use of select crushed material for select borrow. The material shall conform to the requirements of standard spec 312, and will be measured and paid for as Select Borrow.

Measurement
Replace standard spec 208.4 with the following:

The department will measure select borrow by the cubic yard acceptably completed in its final location using the method of average end areas, with no correction for curvature or settlement, except as follows:

1. The engineer and contractor mutually agree to an alternative volume calculation method;
2. The method of average end areas is not feasible.

If it is not possible to compute volumes of select borrow by the method of average end areas due to erratic location of isolated deposits, the department may compute the volumes by alternative methods involving three-dimensional measurements.

The department will not measure select borrow material beyond the limits of the required slopes as shown on the plans.

(11/29/2016)

36. Backfill Coarse Aggregate Size No. 1, Item 209.0300.S.001; Backfill Coarse Aggregate Size No. 2, Item 209.0300.S.002.

A Description

This special provision describes furnishing and placing coarse aggregate backfill as shown on the plans and as hereinafter provided.

B Materials

Provide clean concrete aggregate graded according to the requirements as specified under standard spec 501.2.5.4.5. The soundness and wear requirements are deleted from this material.

C Construction

Construct the coarse aggregates according to standard spec 209.3.

D Measurement

The department will measure Backfill Coarse Aggregate Size No. 1 and Size No. 2 in volume by the cubic yard in the vehicle.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
209.0300.S.001	Backfill Coarse Aggregate Size No. 1	CY
209.0300.S.002	Backfill Coarse Aggregate Size No. 2	CY

Payment is full compensation for furnishing and installing the aggregate.
stp-209-030 (20161130)

37. QMP Base Aggregate.

A Description

A.1 General

(1) This special provision describes contractor quality control (QC) sampling and testing for base aggregates, documenting those test results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

(2) Conform to standard spec 301, standard spec 305, and standard spec 310 as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.

(3) Do not apply this special provision to material placed and paid for under the Aggregate Detours, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.

(4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:

1. Production and placement control and inspection.
2. Material sampling and testing.

(5) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:
http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/rdwy/default.aspx

A.2 Small Quantities

(1) The department defines a small quantity, for each individual Base Aggregate bid item, as a contract quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.

(2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:

A.2.1 Quality Control Plan

(1) Submit an abbreviated quality control plan consisting of the following:

1. Organizational chart including names, telephone numbers, current certification(s) with HTCP number(s) and expiration date(s), and roles and responsibilities of all persons involved in the quality control program for material under affected bid items.

A.2.2 Contractor Testing

(1)

Contract Quantity	Minimum Required Testing per source
≤ 6000 tons	One stockpile test prior to placement, and two production or one loadout test. [1] [2]
> 6000 tons and ≤ 9000 tons	One stockpile and Three placement tests[3] [4] [5]

[1] Submit production test results to the engineer for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.

[2] If the actual quantity overruns 6,000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

[3] If the actual quantity overruns 9000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

[4] For 3-inch material or lift thickness of 3-inch or less, obtain samples at load-out.

[5] Divide the aggregate into uniformly sized sublots for testing

(2) Stockpile testing for concrete pavement recycled in place will be sampled on the first day of production.

(3) Until a four point running average is established, individual placement tests will be used for acceptance. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.

(4) Material represented by a sublot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

A.2.3 Department Testing

(1) The department will perform testing as specified in B.8 except as follows:

- Department stockpile verification testing prior to placement is optional for contract quantities of 500 tons or less.

B Materials

B.1 Quality Control Plan

(1) Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.

(2) Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
5. Descriptions of stockpiling and hauling methods.
6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.2 Personnel

(1) Have personnel certified under the department's highway technician certification program (HTCP) perform sampling, testing, and documentation as follows:

Required Certification Level:	Sampling or Testing Roles:
Transportation Materials Sampling Technician (TMS) Aggregate Technician I (AGGTEC-I) Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Sampling[1]
Aggregate Technician I (AGGTEC-I) Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Gradation Testing, Aggregate Fractured Particle Testing, Aggregate Liquid Limit and Plasticity Index Testing

[1] Plant personnel under the direct observation of an aggregate technician certified at level one or higher may operate equipment to obtain samples.

(2) A certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

B.3 Laboratory

(1) Perform QC testing at a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Materials Management Section
3502 Kinsman Blvd.
Madison, WI 53704
Telephone: (608) 246-5388

http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/qual-labs.aspx

B.4 Quality Control Documentation

B.4.1 General

(1) Submit base aggregate placement documentation to the engineer within 10 business days after completing base placement. Ensure that the submittal is complete, neatly organized, and includes applicable project records and control charts.

B.4.2 Records

(1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within one business day after obtaining a sample. Post or distribute tabulated results using a method mutually agreeable to the engineer and contractor.

B.4.3 Control Charts

(1) Plot gradation and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 8.30. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.

(2) Provide control charts to the engineer within one business day after obtaining a sample. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:

1. Contractor individual QC tests.
2. Department QV tests.
3. Department IA tests.
4. Four-point running average of the QC tests.

(3) Except as specified under B.8.2.1 for nonconforming QV placement tests, include only QC placement tests in the running average. The contractor may plot process control or informational tests on control charts, but do not include these tests, conforming QV tests, or IA tests in the running average.

B.5 contractor Testing

(1) Test gradation, fracture, liquid limit and plasticity index during placement for each base aggregate size, source or classification, and type.

(2) Perform one stockpile test from each source prior to placement.

(3) Test gradation once per 3000 tons of material placed or fraction thereof. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples or lift thickness of 3-inch or less from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.

(4) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for seven calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

(5) The engineer may require additional sampling and testing to evaluate suspect material or the technician’s sampling and testing procedures.

(6) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.

(7) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

B.6 Test Methods

B.6.1 Gradation

(1) Test gradation using a washed analysis conforming to the following as modified in CMM 8.60:

Gradation..... AASHTO T 27
Material finer than the No. 200 sieve..... AASHTO T 11

(2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.

(3) Maintain a separate control chart for each sieve size specified in standard spec 305 or standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:

1. Control limits are at the upper and lower specification limits.
2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.
4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

B.6.2 Fracture

(1) Test fracture conforming to CMM 8.60. The engineer will waive fractured particle testing on quarried stone.

(2) Maintain a separate fracture control chart for each base aggregate size, source or classification, and type. Set the lower control limit at the contract specification limit, either specified in another special provision or in table 301-2 of standard spec 301.2.4.5. Set the lower warning limit 2 percent above the lower control limit. There are no upper limits.

B.6.3 Liquid Limit and Plasticity

(1) Test the liquid limit and plasticity according to AASHTO T 89 and T 90.

(2) Ensure the material conforms to the limits specified in standard spec table 301-2.

B.7 Corrective Action

B.7.1 General

(1) Consider corrective action when the running average trends toward a warning limit. Take corrective action if an individual test exceeds the contract specification limit. Document all corrective actions both in the project records and on the appropriate control chart.

B.7.2 Placement Corrective Action

(1) Do not blend additional material on the roadbed to correct gradation problems.

(2) Notify the engineer whenever the running average exceeds a warning limit. When two consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:

1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
2. For fracture, increase the QC testing frequency to at least one test per gradation test.

(3) If corrective action improves the property in question such that the running average after four additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after four additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.

(4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:

1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
3. The fracture control limit is exceeded by more than 10.0 percent.

B.8 Department Testing

B.8.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will

provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within two business days after the department obtains the sample.

B.8.2 Verification Testing

B.8.2.1 General

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:

1. Perform one stockpile test from each source prior to placement.
2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

(3) The department will sample randomly, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting; except, for 3-inch aggregates or for a lift thickness of 3-inch or less, the department will collect samples at load-out. The department will split each sample, test half for QV, and retain half.

(4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.

B.8.3 Independent Assurance

(1) Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.9.

B.9 Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

(2) Production test results, and results from other process control testing, may be considered when resolving a dispute.

(3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C (Vacant)

D (Vacant)

E Payment

(1) Costs for all sampling, testing, and documentation required under this special provision are incidental to this work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the non-performance of QMP administrative item.

(2) For material represented by a running average exceeding a control limit, the department will reduce pay according to CMM 8-10.5.2 for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

stp-301-010 (20161130)

38. Base Aggregate Dense 3/4 –Inch, item 305.0110.

Revise standard spec 301.2.4.3 as follows:

Furnish aggregate classified as crushed stone, from a department-approved quarry, for 3/4-inch base when used in the top 3 inches of the unpaved portion of the shoulder or for unpaved driveways and field entrances.
(1/5/2017) (SWR 305.01-09212015)

39. Base Aggregate Dense 1 1/4-Inch, Item 305.0120.

Revise standard spec 305.2.2.1 as follows:

Use 1 1/4-inch base aggregate that conforms to the following gradation requirements.

SIEVE	PERCENT PASSING BY WEIGHT
1 1/4 inch	95 - 100
1 inch	---
3/4 inch	70 - 90
3/8 inch	45 - 75
No. 4	30 - 60
No. 10	20 - 40
No. 40	7 - 25
No. 200	3 - 10 [1]

[1] Limited to a maximum of 8.0 percent for base placed between old and new pavement.

(1/5/2017) (SWR 305.02-08032016)

40. Rout and Seal, Item 415.6000.S.

A Description
This special provision describes routing, cleaning, drying, and sealing the longitudinal edge of pavement joints in new asphaltic pavement shoulders immediately adjacent to the edge of the concrete pavement. The work shall conform to the plan details and as hereinafter provided.

B Materials
Furnish material that conforms to the requirements of the Specifications for Joint Sealants, Hot-Poured, for Concrete and Asphalt Pavements, ASTM Designation: D 6690, Type II, modified to require that the bond strength test be run at -20 degrees F. (The unmodified ASTM D 6690, Type II allows this test to be run at either 0 degrees F or -20 degrees F.)

Deliver each lot or batch of sealing compound to the jobsite in the manufacturer's original sealed container. Mark each container with the manufacturer's name, batch or lot number, and the safe heating temperature. Present the manufacturer's certification stating that the compound meets the requirements of this specification. Prior to applying the sealant, furnish to the engineer a certificate of compliance and a copy of the manufacturer's recommendations on heating and applying the sealant.

C Construction

C.1 Equipment

Heat the sealing compound to the pouring temperature recommended by the manufacturer in an approved kettle or tank, constructed as a double boiler, with the space between the inner and outer shells filled with oil or other satisfactory heat transfer medium. If and when using the heating kettle on concrete or asphaltic pavement, properly insulate the heating kettle to ensure heat is not radiated to the pavement surface.

Make rout cuts in a single pass. Two-pass cutting will not be allowed. Use a self-propelled mechanical router capable of routing the bituminous pavement to provide a 1.0:1.0 depth to width ratio of all routed cracks. The router blade or blades shall be of such size and configuration to cut the desired joint reservoir in one pass. No spacers between blades shall be allowed unless the contractor can demonstrate to the engineer that the desired reservoir and rout cut can be obtained with them. Either wet or dry routing will be permitted provided the above conditions are met. Use a pressure distributor for applying sealing material through a hand-operated wand or nozzle according to sealant manufacturer's instructions.

C.2 Methods

Conduct the operation so that the routing, cleaning, and sealing are continuous operations. Traffic shall not be allowed to knead together or damage the routed joints. Rerout, if necessary, routed joints not sealed before traffic is allowed on the pavement when routing and sealing operations resume at no additional cost to the department. Do not perform rout cutting, cleaning, and sealing, within 48 hours of the placement of the shoulder's surface course.

Rout the longitudinal joint to a minimum width of ¾-inches and a minimum depth of ¾-inches. Use a power vacuum or equivalent to immediately remove any routing slurry, dirt, or deleterious matter adhering to the joint walls or remaining in the joint cavity, or both. Prior to sealing, dry the cleaned joints either by air-drying or by using a high capacity torch. Immediately prior to sealing, blow out the dried crack with a blast of compressed air, 80-psi minimum. Continue cleaning until the joint is dry, and until all dirt, dust, or deleterious matter is removed from the joint and adjacent pavement to the satisfaction of the engineer. If the air compressor produces dirt or other residue in the joint cavity, the contractor shall be required to clean the joint again.

If cleaning operations could cause damage to, or interfere with, traffic in adjacent lanes, or both, provide protective screening that is subject to the approval of the engineer to the cleaning operation.

Following cleaning, dry the routed joints and warm them with a hot air lance. Take care not to burn the pavement surface. Under no circumstances shall more than two minutes elapse between the time the hot air lance is used and the sealant is placed.

Provide positive temperature control and mechanical agitation. Do not heat the sealant to more than 20 degrees F below the safe heating temperature. The safe heating temperature can be obtained from the manufacturer's shipping container. Provide a direct connecting pressure type extruding device with nozzles shaped for insertion into the joint. Immediately remove sealant spilled on the surface of the pavement.

Seal the joints when the sealant material is at the pouring temperature recommended by the manufacturer. Fill the joint such that after cooling, the sealant is flush with the adjacent pavement surface. Do not overfill the joint; the engineer may allow a very slight overband. Sand shall not be spread on the sealed joints to allow for opening to traffic. Before opening to traffic, the sealant shall be tack free.

D Measurement
The department will measure Rout and Seal in length by the linear foot, completed according to the contract and accepted.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
415.6000.S	Rout and Seal	LF

Payment is full compensation for rout cutting; cleaning the joint; furnishing and installing all materials, including sealant.
415-100 (20140630)

41. HMA Pavement Modification.

A Description
This special provision describes specialized material requirements for HMA Pavements. Conform to standard spec 460 as modified in this special provision.

Replace the noted HMA mixture values in Table 460-2 under standard spec 460.2.7 with the following:

1. LA Wear (AASHTO T96) – LT, MT, HT, and SMA mixtures:
   - 100 revolutions – 13% loss maximum
   - 500 revolutions – 40% loss maximum

2. Soundness (AASHTO T104) (sodium sulfate) – LT, MT, HT, and SMA mixtures:
   - 9.0% loss maximum

3. Freeze/ Thaw (AASHTO T103) (specified counties) – LT, MT, HT, and SMA mixtures:
   - 12% loss maximum

Replace Note 3 at the end of Table 460-2 under standard spec 460.2.7 with the following:

[3] For No. 5 (9.5 mm) and No. 4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 73 – 76%.

42. QMP HMA Pavement Nuclear Density.

A Description

Replace standard spec 460.3.3.2 (1) and standard spec 460.3.3.2 (4) with the following:

(1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 as modified in this special provision.

(2) Provide and maintain a quality control program defined as all activities and documentation of the following:

1. Selection of test sites.
2. Testing.
3. Necessary adjustments in the process.
4. Process control inspection.

(3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures. Obtain the CMM from the department's web site at:

http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm

(4) The department's Materials Reporting System (MRS) software allows contractors to submit data to the department electronically, estimate pay adjustments, and print selected reports. Qualified personnel may obtain MRS software from the department's web site at:

http://www.atwoodsystems.com/mrs

B Materials

B.1 Personnel

(1) Perform HMA pavement density (QC, QV) testing using a HTCP certified nuclear technician I, or a nuclear assistant certified technician (ACT-NUC) working under a certified technician.

(2) If an ACT is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

B.2 Testing

(1) Conform to ASTM D2950 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter position. Perform each test for 4 minutes of nuclear gauge count time.

B.3 Equipment

B.3.1 General

(1) Furnish nuclear gauges from the department's approved product list at http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm.

(2) Have the gauge calibrated by the manufacturer or an approved calibration service within 12 months of its use on the project. Retain a copy of the manufacturer's calibration certificate with the gauge.

(3) Prior to each construction season, and following any calibration of the gauge, the contractor must perform calibration verification for each gauge using the reference blocks located in the department's central office materials laboratory. To obtain information or schedule a time to perform calibration verification, contact the department's Radiation Safety Officer at:

Materials Management Section
3502 Kinsman Blvd.
Madison, Wisconsin 53704
Telephone: (608) 243-5998

B.3.2 Comparison of Nuclear Gauges

B.3.2.1 Comparison of QC and QV Nuclear Gauges

(1) Select a representative section of the compacted pavement prior to or on the first day of paving for the comparison process. The section does not have to be the same mix design.

(2) Compare the 2 or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the comparison on 5 test sites jointly located. Record each density measurement of each test site for the QC, QV and back up gauges.

(3) Calculate the average of the difference in density of the 5 test sites between the QC and QV gauges. Locate an additional 5 test sites if the average difference exceeds 1.0 lb/ft3. Measure and record the density on the 5 additional test sites for each gauge.

(4) Calculate the average of the difference in density of the 10 test sites between the QC and QV gauges. Replace one or both gauges if the average difference of the 10 tests exceeds 1.0 lb/ft3 and repeat comparison process from B.3.2.1 (2).

(5) Furnish one of the QC gauges passing the allowable comparison tolerances to perform density testing on the project.

B.3.2.2 Comparison Monitoring

(1) After performing the gauge comparison specified in B.3.2.1, establish a project reference site approved by the department. Clearly mark a flat surface of concrete or asphalt or other material that will not be disturbed during the duration of the project. Perform comparison monitoring of the QC, QV, and all back-up gauges at the project reference site.

(2) Conduct an initial 10 density tests with each gauge on the project reference site and calculate the average value for each gauge to establish the gauge's reference value. Use the gauge's reference value as a control to monitor the calibration of the gauge for the duration of the project.

(3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft3 of its reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft3 of its reference value established in B.3.2.2(2).

(4) Maintain the reference site test data for each gauge at an agreed location.

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

(1) A lot consists of the tonnage placed each day for each layer and target density specified in standard spec 460.3.3.1. A lot may include partial sublots.

(2) Divide the roadway into sublots. A sublot is 1500 lane feet for each layer and target density.

(3) A sublot may include HMA placed on more than one day of paving. Test sublots at the pre-determined random locations regardless of when the HMA is placed. No additional testing is required for partial sublots at the beginning or end of a day's paving.

(4) If a resulting partial quantity at the end of the project is less than 750 lane feet, include that partial quantity with the last full sublot of the lane. If a resulting partial quantity at the end of the project is 750 lane feet or more, create a separate sublot for that partial quantity.

(5) Randomly select test locations for each sublot as specified in CMM 8.15 prior to paving and provide a copy to the engineer. Locate and mark QC density test sites when performing the tests. Perform density tests prior to opening the roadway to traffic.

(6) Use Table 1 to determine the number of tests required at each station, depending on the width of the lane being tested. When more than one test is required at a station, offset the tests 10 feet longitudinally from one another to form a diagonal testing row across the lane.

Lane Width	No. of Tests	Transverse Location
5 ft or less	1	Random
Greater than 5 ft to 9 ft	2	Random within 2 equal widths
Greater than 9 ft	3	Random within 3 equal widths

Table 1

B.4.1.2 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts

(1) A lot represents a combination of the total daily tonnage for each layer and target density.

(2) Each side road, crossover, turn lane, ramp, and roundabout must contain at least one sublot for each layer.

(3) If a side road, crossover, turn lane, or ramp is 1500 feet or longer, determine sublots and random test locations as specified in B.4.1.1.

(4) If a side road, crossover, turn lane, or ramp is less than 1500 feet long, determine sublots using a maximum of 750 tons per sublot and perform the number of random tests as specified in Table 2.

Side Roads, Turn Lanes, Crossovers, Ramps, Roundabouts: Sublot/Layer tonnage	Minimum Number of Tests Required
25 to 100 tons	1
101 to 250 tons	3
251 to 500 tons	5
501 to 750 tons	7

Table 2

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

(1) Calculate the average sublot densities using the individual test results in each sublot.

(2) If all sublot averages are no more than one percent below the target density, calculate the daily lot density by averaging the results of each random QC test taken on that day's material.

(3) If any sublot average is more than one percent below the target density, do not include the individual test results from that sublot when computing the lot average density and remove that sublot's tonnage from the daily quantity for incentive. The tonnage from any such sublot is subject to disincentive pay according to standard spec 460.5.2.2.

B.4.2.2 Mainline Shoulders

B.4.2.2.1 Width Greater Than 5 Feet

(1) Determine the pavement density as specified in B.4.2.1.

B.4.2.2.2 Width of 5 Feet or Less

(1) If all sublot test results are no more than 3.0 percent below the minimum target density, calculate the daily lot density by averaging all individual test results for the day.

(2) If a sublot test result is more than 3.0 percent below the target density, the engineer may require the unacceptable material to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine the limits of the unacceptable material according to B.4.3.

B.4.2.3 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts

(1) Determine the pavement density as specified in B.4.2.1.

B.4.2.4 Documentation

(1) Document QC density test data as specified in CMM 8.15. Provide the engineer with the data for each lot within 24 hours of completing the QC testing for the lot.

B.4.3 Corrective Action

(1) Notify the engineer immediately when an individual test is more than 3.0 percent below the specified minimum in standard spec 460.3.3.1. Investigate and determine the cause of the unacceptable test result.

(2) The engineer may require unacceptable material specified in B.4.3(1) to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine limits of the unacceptable area by measuring density of the layer at 50-foot increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing at 50-foot increments until a point of acceptable density is found as specified in standard spec 460.5.2.2(1). Removal and replacement of material may be required if extended testing is in a previously accepted sublot. Testing in a previously accepted sublot will not be used to recalculate a new lot density.

(3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full sublot width within the traffic lanes or shoulders.

(4) Retesting and acceptance of replaced pavement will be according to standard spec 105.3.

(5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the sublot and lot densities.

(6) If 2 consecutive sublot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

B.5 Department Testing

B.5.1 Verification Testing

(1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the sublots and a minimum of one sublot per mix design. The sublots selected will be within the active work zone. The contractor will supply the necessary traffic control for the department's testing activities.

(2) The QV tester will test each selected sublot using the same testing requirements and frequencies as the QC tester.

(3) If the verification sublot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.

(4) If the verification sublot average is more than one percent below the specified target density, compare the QC and QV sublot averages. If the QV sublot average is within 1.0 lb/ft3 of the QC sublot average, use the QC tests for acceptance.

(5) If the first QV/QC sublot average comparison shows a difference of more than 1.0 lb/ft3 each tester will perform an additional set of tests within that sublot. Combine the additional tests with the original set of tests to compute a new sublot average for each tester. If the new QV and QC sublot averages compare to within 1.0 lb/ft3, use the original QC tests for acceptance.

(6) If the QV and QC sublot averages differ by more than 1.0 lb/ft3 after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

B.5.2 Independent Assurance Testing

(1) Independent assurance is unbiased testing the department performs to evaluate the department's verification and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform the independent assurance review according to the department's independent assurance program.

B.6 Dispute Resolution

(1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge comparison according to B.3.2.1.

(2) The testers may use comparison monitoring according to B.3.2.2 to determine if one of the gauges is out of tolerance. If a gauge is found to be out of tolerance with its reference value, remove the gauge from the project and use the other gauge's test results for acceptance.

(3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV sublot density test results or retesting of the sublot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.

(4) If investigation finds that both gauges are in error, the contractor and engineer will reach a decision on resolution through mutual agreement.

B.7 Acceptance

(1) The department will not accept QMP HMA Pavement Nuclear Density if a non-compared gauge is used for contractor QC tests.

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

(1) Costs for all sampling, testing, and documentation required under this special provision are incidental to the work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the Non-performance of QMP administrative item.

E.2 Disincentive for HMA Pavement Density

(1) The department will administer density disincentives according to standard spec 460.5.2.2.

E.3 Incentive for HMA Pavement Density

(1) The department will administer density incentives according to standard spec 460.5.2.3.

stp-460-020 (20161130)

43. Aggregates For Concrete Pavements.

This special provision describes specialized material requirements for aggregates used in Concrete Pavements. Conform to standard spec 415 and 501, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement and Structures.

Replace standard spec 501.2.5.4.1 with the following:

501.2.5.4.1 General

(1) The department will sample and test aggregates as follows:

LA Wear (100 and 500 revolutions)…….……...……..	AASHTO T 96
Sodium Sulfate Soundness (R-4, 5 cycles)…….	AASHTO T 104
Freeze-Thaw Soundness…….	AASHTO T 103
Lightweight Pieces[1]……	AASHTO T 113

[1] Material having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of lightweight pieces by dividing the weight of lightweight pieces in the sample retained on the 3/8-inch sieve by the weight of the total sample.

(2) Contact the engineer a minimum of four weeks prior to paving to collect a sample of the aggregates proposed for the project. The engineer will obtain the sample, or observe the contractor obtaining the sample. The sampler must be HTCP certified to sample aggregates.

(3) The department will randomly sample coarse aggregate for lightweight pieces testing at least once per 10,000 cubic yards during placement of concrete pavement.

(4) Use clean, hard, durable crushed gravel or crushed limestone free of an excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances, or adherent coatings considered injurious.

(5) Use virgin aggregates only.

Replace the first paragraph of standard spec 501.2.5.4.2 with the following:

(1) The amount of deleterious substances must not exceed the following percentages:

DELETERIOUS SUBSTANCE	PERCENT BY WEIGHT
Shale	1.0
Coal	1.0
Clay lumps	0.3
Soft fragments	5.0
Any combination of above	5.0
Thin or elongated pieces based on a 3:1 ratio	15.0
Materials passing the No. 200 sieve	1.5
Lightweight Pieces	5.0

Replace the first paragraph of standard spec 501.2.5.4.3 with the following:

(1) The percent wear shall not exceed 40, the weighted soundness loss shall not exceed 9 percent, and the weighted freeze-thaw average loss shall not exceed 12 percent.

44. Concrete Pavement.

Modify standard spec 415.3.6 with the following:

415.3.6 Placing Concrete

Add the following as standard spec 415.3.6.4:

415.3.6.4 Concrete Protective Surface Treatment

(1) This specification applies to all sawed concrete joints on the IH 39/90 interstate mainline and ramps, also including sawed joints on concrete shoulders, and to all concrete placement methods. Treat sawed surfaces of transverse and longitudinal joints with a silane joint sealant found on the department approved products list for Concrete Protective Surface Treatments. Prepare surface by pressure washing all saw slurry from sawed joints and allow to dry thoroughly prior to application of silane sealer. Apply the product directly to the interior of the sawed joint. Do not use the broadcast spray method of application.

(1/5/2017)

45. High Performance Dowel Bars Special.

A Description

This special provision describes the optional use of high performance dowel bars for use in mainline pavement. The contractor can use dowels as defined in standard spec 505.2.6.2 or as described below.

B Materials

Replace standard spec 505.2.6.2(1) with the following when using high performance dowel bars:

- Bars with a fully bonded longitudinal glass fiber reinforced polymer (GFRP) corrosion shield conforming to the GFRP materials requirements of AASHTO LRFD Bridge Design Guide Specifications for GFRP Reinforced Concrete Bridge Decks and Traffic Railings.
- Ensure that the bars have a smooth finished GFRP surface coating 0.125 inches thick or thicker over ASTM A615 grade 60 or higher carbon steel.
- Ensure that the bars are straight, round, smooth, and free from burrs or other deformations detrimental to the free movement of the bar in the concrete.

46. Ice Hot Weather Concreting, Item 501.1000.S.

Conform to standard spec 501.3.8.2 except the department will pay for ice at the contract unit price under the Ice Hot Weather Concreting bid item. This special provision only applies to work done under the following contract bid items:

Concrete Masonry Bridges	Concrete Masonry Retaining Walls
Concrete Masonry Bridges HES	Concrete Masonry Retaining Walls HES
Concrete Masonry Culverts	Concrete Masonry Endwalls
Concrete Masonry Culverts HES	Concrete Masonry Overlay Decks

High Performance Concrete (HPC) Masonry Structures

Replace standard spec 501.4 and 501.5 with the following:

501.4 Measurement
The department will measure Ice Hot Weather Concreting by the pound, acceptably completed, measured only if the conditions prescribed in standard spec 501.3.8.2 are met.

501.5 Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
501.1000.S	Ice Hot Weather Concreting	LB

Payment for Ice Hot Weather Concreting is full compensation for ice used to cool concrete placed in hot weather as specified in standard spec 501.3.8.2.

The department will not pay directly for the concrete specified under this section. Concrete is incidental to the various bid items using it. Payment under those bid items includes providing all materials, including aggregates and associated aggregate source testing, cement, fly ash, slag, and admixtures; for preparing, transporting, storing, protecting and curing concrete; and for contractor requirements related to testing specified in standard spec 501.3.10.

If required to remove and replace any concrete damaged by lack of proper protection. Perform this work at no expense to the department.
501-010 (20151210)

47. Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S.

A Description
This special provision describes furnishing and placing stainless steel reinforcing bars and associated stainless steel bar couplers.

Conform to standard spec 505 as modified in this special provision.

B Materials
B.1 General
Furnish stainless steel reinforcing bars conforming to ASTM A955 and to one of the following Unified Numbering System (UNS) designations: S31653, S31803, S32205, or S32304. Supply grade 60 bars, all of the same UNS designation. Conform to the chemical composition specified for the given UNS designation in ASTM A276 table 1.

Supply bars that are free of dirt, mill scale, oil, and debris by pickling to a bright or uniform light finish. The department may reject bars displaying rust/oxidation, questionable blemishes, or lack of a bright or uniform pickled surface.

Furnish chairs or continuous supports made of stainless steel or recycled plastic to support high-strength stainless bar steel reinforcement subject to the plastic chair restriction stated in standard spec 505.3.4(1).

Furnish couplers made from one of the UNS alloys allowed for bar steel.

Furnish tie wire made from one of the UNS alloys allowed for bar steel or from an engineer-approved plastic or nonmetallic material. Ensure that stainless steel tie wire is dead soft annealed.

B.2 Fabrication

Before fabrication, supply test results from an independent testing agency certifying that the reinforcement meets the requirements of Annex Al of ASTM A955.

Bend bars conforming to standard spec 505.3.2 and according to ASTM A955. Bend and cut bars using equipment thoroughly cleaned or otherwise modified to prevent contamination from carbon steel or other contaminants. Use tools dedicated solely to working with stainless steel.

B.3 Control of Material

Identify reinforcement bars delivered to the project site with tags bearing the identification symbols used in the plans. Include the UNS designation, heat treat condition, heat number, grade corresponding to minimum yield strength level, and sufficient documentation to track each bar bundle to a mill test report.

Provide samples for department testing and acceptance according to CMM 8-50 Exhibit 1 requirements for concrete masonry reinforcement for uncoated bar steel.

Provide mill test reports for the project that do the following:

1. Verify that sampling and testing procedures and test results conform to ASTM A955, ASTM A276 table 1, and these contract requirements.

2. Include a chemical analysis with the UNS designation, heat lot identification, and the source of the metal.

3. Include tensile strength, yield strength, and elongation tests results conforming to ASTM A955 for each size furnished.

4. Certify that the bars have been pickled to a bright or uniform light finish.

C Construction

C.1 General

Ship, handle, store, and place the stainless steel reinforcing as follows:

1. Separate from regular reinforcement during shipping. Pad points of contact with steel chains or banding, or secure with non-metallic straps.

2. Store on wooden cribbing separated from regular reinforcement. Cover with tarpaulins if stored outside.

3. Handle with non-metallic slings.

4. Do not flame cut or weld. Protect from contamination when cutting, grinding, or welding other steel products above or near the stainless steel during construction.

5. Place on plastic or stainless steel bar chairs. If placing stainless steel chairs on steel beams, use chairs with plastic-coated feet.

6. Tie with stainless steel wire or an engineer-approved plastic or nonmetallic material.

Do not tie stainless steel reinforcing bars to, or allow contact with, uncoated reinforcing bars or galvanized steel. Maintain at least 1-inch clearance between stainless steel bars or dowels and uncoated or galvanized steel. Where 1-inch clearance is not possible, sleeve bars with a continuous polyethylene or nylon tube at least l/8-inch thick extending at least 1 inch in each direction and bind with nylon or polypropylene cable ties. Sleeves are not required between stainless steel bars and shear studs. Stainless steel bars can be in direct contact with undamaged epoxy-coated bars.

Cut flush with the top flange or remove uncoated fasteners, anchors, lifting loops, or other protrusions into a bridge deck before casting the deck on prestressed concrete beams.

C.2 Splices

Splice as the plans show. Provide stainless steel couplers conforming to the minimum capacity, certification, proof testing, and written approval requirements of standard spec 550.3.3.4. The contractor may substitute stainless steel couplers for lap slices the plans show if the engineer approves in writing.

If increasing or altering the number or type of bar splices the plans show, provide revised plan sheets to the engineer showing the reinforcement layout, type, length, and location of revised bar splices and revised bar lengths. Obtain engineer approval for the location of new lap splices or substitution of mechanical bar couplers before fabrication. Ensure that new lap splices are at least as long as those the plans show.

D Measurement

The department will measure Bar Steel Reinforcement HS Stainless Structures by the pound, acceptably completed, computed from the nominal weights of corresponding sizes for carbon steel deformed bars in AASHTO M31 regardless of stainless steel alloy provided. The department will not measure extra material used if the contractor alters the reinforcement layout as allowed under C.2, extra material for splices or couplers the plans do not show, or the weight of devices used to support or fasten the steel in position.

The department will measure the Bar Couplers Stainless bid items as each individual coupler, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB

Payment for Bar Steel Reinforcement HS Stainless Structures is full compensation for furnishing and placing stainless steel reinforcing bars, including supports. Where the plans specify bar couplers, the department will pay for the length of bars as detailed with no deduction or increase for installation of the coupler.

Payment for the Bar Couplers Stainless bid items is full compensation for providing couplers; including bar steel that is part of the coupler and not detailed in the plan; for threading reinforcing bars; for installing and coating the splice; and for supplying and testing 3 couplers.
stp-505-005 (20141107)

48. Cover Plates Temporary, Item 611.8120.S.

A Description
This special provision describes furnishing, installing and removing a steel plate to cover and support asphaltic pavement and traffic loading at manholes, inlets and similar structures during milling and paving operations.

B Materials
Provide a 0.25-inch minimum thickness steel plate that extends to the outside edge of the existing masonry.

C (Vacant)

D Measurement
The department will measure Cover Plates Temporary as each individual unit, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
611.8120.S	Cover Plates Temporary	EACH

Payment is full compensation for furnishing, installing, and removing the cover plates.

The steel plates shall become the property of the contractor when no longer needed in the contract work.
611-006 (20151210)

49. Fence Safety, Item 616.0700.S.

A Description

This special provision describes furnishing and installing a plastic fence at locations shown on the plans and as hereinafter provided.

B Materials

Furnish notched conventional metal "T" or "U" shaped fence posts.

Furnish fence fabric meeting the following requirements.

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1 inch min to 3 inch max
Resin/Construction:	High density polyethylene mesh
Tensile Yield:	Avg. 2000 lb per 4 ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4 ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

C Construction

Drive posts into the ground 12 to 18 inches. Space posts at 7 feet.

Use a minimum of three wire ties to secure the fence at each post. Weave tension wire through the top row of strands to provide a top stringer that prevents sagging.

Overlap two rolls at a post and secure with wire ties.

D Measurement

The department will measure Fence Safety by the linear foot along the base of the fence, center-to-center of posts, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

Payment is full compensation for furnishing and installing fence and posts; maintaining the fence and posts in satisfactory condition; and for removing and disposing of fence and posts at project completion.
616-030 (20160607)

50. Nighttime Work Lighting-Stationary.

A Description

Provide portable lighting as necessary to complete nighttime work. Nighttime operations consist of work specifically scheduled to occur after sunset and before sunrise.

B (Vacant)

C Construction

C.1 General

This provision shall apply when providing, maintaining, moving, and removing portable light towers and equipment-mounted lighting fixtures for nighttime stationary work operations, for the duration of nighttime work on the contract.

At least 14 days prior to the nighttime work, furnish a lighting plan to the engineer for review and acceptance. Address the following in the plan:

1. Layout, including location of portable lighting – lateral placement, height, and spacing. Clearly show on the layout the location of all lights necessary for every aspect of work to be done at night.

2. Specifications, brochures, and technical data of all lighting equipment to be used.

3. The details on how the luminaires will be attached.

4. Electrical power source information.

5. Details on the louvers, shields, or methods to be employed to reduce glare.

6. Lighting calculations. Provide illumination with average to minimum uniformity ratio of 5:1 or less throughout the work area.

7. Detail information on any other auxiliary equipment.

C.2 Portable Lighting

Provide portable lighting that is sturdy and free standing and does not require any guy wires, braces, or any other attachments. Furnish portable lighting capable of being moved as necessary to keep up with the construction project. Position the portable lighting and trailers to minimize the risk of being impacted by traffic on the roadway or by construction traffic or equipment. Provide lightning protection for the portable lighting. Portable lighting shall withstand up to 60 mph wind velocity.

If portable generators are used as a power source, furnish adequate power to operate all required lighting equipment without any interruption during the nighttime work. Provide wiring that is weatherproof and installed according to local, state, federal (NECA and OSHA) requirements. Equip all power sources with a ground-fault circuit interrupter to prevent electrical shock.

C.3 Light Level and Uniformity
Position (spacing and mounting height) the luminaires to provide illumination with an average to minimum uniformity ratio of 5:1 or less throughout the work area.

Illuminate the area as necessary to incorporate construction vehicles, equipment, and personnel activities.

C.4 Glare Control
Design, install, and operate all lighting supplied under these specifications to minimize or avoid glare that interferes with all traffic on the roadway or that causes annoyance or discomfort for properties adjoining the roadway. Locate, aim, and adjust the luminaires to provide the adequate level of illumination and the specified uniformity in the work area without the creation of objectionable glare.

Provide louvers, shields, or visors, as needed, to reduce any objectionable levels of glare. As a minimum, ensure the following requirements are met to avoid objectionable glare on the roadways open to traffic in either direction or for adjoining properties:

1. Aim tower-mounted luminaires, either parallel or perpendicular to the roadway, so as to minimize light aimed toward approaching traffic.

2. Aim all luminaires such that the center of beam axis is no greater than 60 degrees above vertical (straight down).

If lighting does not meet above-mentioned criteria, adjust the lighting within 24 hours.

C.5 Continuous Operation
Provide and have available sufficient fuel, spare lamps, generators, and qualified personnel to ensure that the lights will operate continuously during nighttime operation. In the event of any failure of the lighting system, discontinue the operation until the adequate level of illumination is restored. Move and remove lighting as necessary.

D (Vacant)

E Payment
Costs for furnishing a lighting plan, and for providing, maintaining, moving, and removing portable lighting, tower mounted lighting, and equipment-mounted lighting required under this special provision are incidental to the contract.
643-010 (20100709)

51. Blue Specific Service Signs.

Add the following to standard spec 638.3.4:

Do not remove or move blue specific service signs or their associated posts. Specific service signs are signs with logos that identify commercial entities providing gas, food, lodging,

camping, or attractions. A separate contractor, Interstate Logos - Wisconsin, is responsible for these signs. Contact Interstate Logos - Wisconsin at (844) 496-9163 a minimum of 14 calendar days in advance to coordinate removing, moving, or re-installation of these signs.

The contractor is responsible for damage done to these signs due to contractor operations.
638-010 (20150630)

52. Salvaged Topsoil.

Replace standard spec 625.3.3 (3) with the following:

For the upper 2 inches of the topsoil, 100 percent of the material must pass a 1-inch sieve and at least 90 percent must pass the No. 10 sieve.

53. Traffic Control Surveillance and Maintenance 1003-10-81, Item 643.0200.S.001; 1003-10-76, Item 643.0200.S.002.

A Description
This special provision describes providing personnel to inspect and maintain the traffic control devices, furnished, and installed, in proper condition.

B Materials
Provide one person, called the traffic control specialist, all necessary vehicles, equipment, tools, and repair materials. Provide other personnel to accomplish the inspection and maintenance if needed.

C Construction
Inspection and maintenance includes all traffic control signs or devices included in the contract, including those on detour routes. Begin when the first traffic control sign or device is put into operation and end when the last traffic control sign or device is removed from operation.

1. Ensure that the traffic control specialist inspects the traffic control signs and devices at least twice each workday and once each non-workday with at least one of the daily inspections during daytime. Separate inspections done on workdays by at least 8 hours or the amount of time from the beginning to the end of that day's work operations, whichever is less. During each inspection, clean, repair, or replace each traffic control sign or device not performing as intended, as necessary.

2. Ensure that the traffic control specialist inspects each reflective traffic control sign or device at least once each week during hours of darkness. View the signs and devices using low beam vehicle headlights to ensure reflectorization is unimpaired. Clean, repair, or replace each reflectorized traffic control sign or device not performing as intended, as necessary, before sunset of the next calendar day, or as the engineer directs otherwise.

3. Ensure that the traffic control specialist meets once each workday with the department representative responsible for traffic control on the project to discuss possible problems with the traffic control.

4. Ensure that the traffic control specialist submits a written report weekly to the engineer documenting both daytime and nighttime inspections.

5. Make the control specialist, or other contractor-designated person, available 24 hours per day, 7 days per week to clean, repair, or replace traffic control devices not performing as intended throughout the period traffic control signs and devices are operating under this contract. Provide to the engineer, the County Sheriff, and the State Patrol Region Headquarters responsible for that county the telephone number to contact the control specialist or other contractor-designated person. Ensure that the control specialist, or other designated person, is able to reach any location within the contract limits, or on detour routes, within 2 hours of being contacted, and can promptly accomplish the necessary cleaning, repair, or replacement.

D Measurement

The department will measure the Traffic Control Surveillance and Maintenance bid items by the day, acceptably completed. The measured quantity will equal the number of calendar days from the date the first traffic control sign or device is placed into operation through the date the last traffic control sign or device is removed from operation.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
643.0200.S.001	Traffic Control Surveillance and Maintenance 1003-10-81	DAY
643.0200.S.002	Traffic Control Surveillance and Maintenance 1003-10-76	DAY

Payment is full compensation for Payment for the Traffic Control Surveillance and Maintenance bid items is full compensation for providing all labor, materials, tools, equipment, vehicles, and incidentals, including reports and telephone charges, necessary to complete the work; and for partially or fully covering or uncovering signs not paid separately under the Traffic Control Covering Signs bid items. The department will not pay for replaced traffic control signs or devices under this bid item; replacement is incidental to the respective contract bid item or items.

stp-643-016 (20160607)

54. Traffic Control Signs, Item 643.0900.

Supplement standard spec 643.2.9.1(5) with the following:

Provide associated advanced signing, including portable traffic control signing, according to the MUTCD. Mount all portable traffic control sign at a minimum height of 5 feet, measured from the bottom of the sign, above the edge of pavement.

55. Traffic Control.

Supplement standard spec 643.3.1 with the following:

Have available at all times sufficient experienced personnel to promptly install, remove and reinstall the required traffic control devices to route traffic in order to perform the operations.

Provide the State Patrol, Dane and Rock County Sheriff's Departments, and the engineer a current telephone number with which the contractor or his representative can be contacted during non-working hours in the event a safety hazard develops.

Do not permit equipment or vehicles to directly cross the live traffic lanes of the highway. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic. Equip all contractor's vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light). Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders.

All construction vehicles and equipment operating on or near roadways open or closed to traffic, shall be equipped with at least one flashing amber light. The flashing amber light shall be activated when vehicles or equipment are operated on the roadway, parked in close proximity to the roadway, and when entering or exiting live lanes of traffic. The flashing amber light shall be mounted approximately midway between the transverse extremities of the vehicles or machinery and at the highest practical point that provides visibility from all directions. The light shall be of the flashing strobe or revolving type meeting the following minimum requirements:

Flashing Strobe Type Light	Revolving Type Light
360-degree lens	360-degree lens
60 to 90 flashes per minute	45 to 90 flashes per minute
5-inch minimum height	4-5/8 inch minimum height
3-3/4 inch minimum diameter	3-3/4 inch minimum diameter

The light shall be equipped with bulbs of 50 candlepower minimum. Mounting shall be either magnetic or permanent. No compensation for furnishing and installing the flashing amber light to contractor owned construction equipment or vehicles will be provided for in the contract.

The contractor shall not disturb, remove or obliterate any traffic control signs, advisory signs, shoulder delineators, sand barrel array or beam guard in place along the traveled roadways not shown on the plans without the approval of the engineer.

The traffic requirements are subject to change at the direction of the engineer in the event of an emergency.

Cover existing signs which conflict with traffic control as directed by the engineer. The turning of traffic control devices when not in use to obscure the message will not be allowed under this contract.

Replace standard spec 643.3.1(6) with the following:

Provide 24-hour a day availability of equipment, forces and materials to promptly restore barricades, lights, or other traffic control devices that are damaged or disturbed. Restore any barricade, light, or other traffic control so that the device is not out of service for more than two hours.

Supplement standard spec 643.3.6(3) with the following:

Place one flashing arrow board in advance of each lane closure taper and place one flashing arrow board within each lane closure taper at locations directed by the engineer.

56. Removing Pavement Markings Water Blasting, Item 646.0690.S.

A Description

This special provision describes removing pavement markings by water blasting. Conform to standard spec 646 and 647 as modified in this special provision.

B (Vacant)

C Construction

Use water blasting to remove the following:

- Markings in areas of temporary traffic shifts.
- Markings on bridge decks.
- Temporary markings on the final pavement surface.
- Where existing pavement is to remain and existing markings are in conflict with the final condition.
- Other locations as shown on the plan or directed by the engineer.

Completely remove pavement marking using a truck mounted ultra high pressure pump and water tank capable of delivering a minimum of 30,000 psi and up to 40,000 psi to waterjet nozzles. Use equipment with a vacuum recovery system that contains wastewater and debris to provide a clean, damp-dry surface, without a secondary cleanup operation. Do not scar or damage the pavement during the removal process. Limit water blasting to when the ambient temperature is at least 36 F and rising.

Properly dispose of the accumulated material off site.

D Measurement
The department will measure Removing Pavement Markings Water Blasting by the linear foot, up to a single 8-inch wide line, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
646.0690.S	Removing Pavement Markings Water Blasting	LF

Payment is full compensation for removal and disposal of all materials.
646-075 (20160607)

57. Pavement Marking Late Season, Item 646.0900.S.

A Description
This special provision describes providing and maintaining late season pavement marking as specified in standard spec 646.3.1.4.

B Materials
Use any pavement marking material from the department's approved products list.

C Construction
Provide and maintain late season marking conforming to standard spec 646.3.1.

D Measurement
The department will measure Pavement Marking Late Season by the linear foot of 4-inch wide line acceptably completed. The department will not measure work required because of delays that are not the department's responsibility under standard spec 108.10.3.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
646.0900.S	Pavement Marking Late Season	LF

Payment for Pavement Marking Late Season is full compensation for providing, maintaining, and removing late season temporary marking; and for resealing areas of protective surface treatment on structures as required in standard spec 646.3.1.1. All costs for late season marking required because of delays that are not the department's responsibility under standard spec 108.10.3 are incidental to the contract.
646-010 (20110615)

58. Pavement Marking Grooved Epoxy 4-Inch, Item 646.0107.S.

A Description

This special provision describes providing grooved standard epoxy pavement marking.

Conform to standard spec 646 as modified in this special provision.

B Materials

Furnish 20 mils standard epoxy pavement marking from the department's approved products list. Provide AAASHTO M247 Type I bead gradation at a drop rate of 22.5 to 25.0 pounds per gallon of epoxy.

C Construction

C.1 General

Plane the grooved lines as the plans show. Use grooving equipment with a free-floating, independent cutting or grinding head. Plane a minimum number of passes to create a smooth groove.

C.2 Groove Depth

Cut the groove to a depth of 60 mils ±10 mils deep from the pavement surface or, if tined, from the high point of the tined surface. Measure depth using a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Linear Markings

Cut the groove 1-inch wider than the width of the pavement marking.

C.4 Groove Position

Position the groove edge as the plans show. If necessary, groove a minimum of 4-inches but not greater than 12-inches from both ends of the pavement marking segment. Achieve straight alignment with the grooving equipment.

C.5 Groove Cleaning

C.5.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with water after cutting to remove any build-up of cement dust and water slurry. Do not let slurry harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, after removal of excess water, and before applying pavement marking. Clean and dry the groove before applying adhesive and placing pavement marking. Use a high-pressure air blower with at least 185 cubic feet per minute air flow and 90 psi air pressure to clean the groove.

C.5.2 Asphalt

Groove pavement five or more days after paving.

If opening an asphalt lane to traffic that is not grooved, place temporary pavement marking. For asphalt lanes not open to traffic, temporary pavement marking is not required.

If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

Use a high-pressure air blower with at least 185 cubic feet per minute air flow and 90 psi air pressure to clean the groove.

D Measurement

The department will measure the Pavement Marking Grooved Epoxy bid items by the linear foot of line, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
646.0107.S	Pavement Marking Grooved Epoxy 4-Inch	LF

Payment is full compensation for providing grooved epoxy marking; for removing existing or temporary marking; and for grooving, cleaning, and preparing the pavement surface.
stp-646-012 (20160607)

59. Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch, Item 646.0841.S; 8-Inch, Item 646.0843.S.

A Description

This special provision describes furnishing, grooving and installing preformed wet reflective pavement marking contrast tape for grooved applications as shown on the plans, according to standard spec 646, and as hereinafter provided.

B Materials

Furnish wet reflective pavement marking contrast tape and adhesive material, per manufacturer's recommendation if required, from the department's approved products list.

Furnish a copy of the manufacturer's recommendations to the engineer before preparing the pavement marking grooves.

C Construction

C.1 General

For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of pavement marking contrast tape.

Plane the grooved lines according to details in the plan and per manufacturer's recommendations. Use grooving equipment with a free-floating, independent cutting head. Plane a minimum number of passes to create a grooved surface per manufacturer's recommendations.

C.2 Groove Depth

Cut the groove to a depth of 120 mils ± 10 mils from the pavement surface or, if tined, from the high point of the tined surface. To measure the depth, the contractor may use a depth plate placed in the groove and a straightedge placed across the plate and groove, or the contractor may use a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Longitudinal Markings

Cut the groove one-inch wider than the width of the tape.

C.4 Groove Position

Position the groove edge according to plan details. Groove a minimum of 4 inches, but not greater than, 12 inches from both ends of the tape segment. Achieve straight alignment with the grooving equipment.

C.5 Groove Cleaning

C.5.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with high-pressure water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, and prior to pavement marking application. The groove surface shall be clean and dry before applying the adhesive, and the pavement marking tape. Use a high-pressure air blower with at least 185 ft^3/min air flow and 120 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 New Asphalt

Groove pavement five or more days after paving.

Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

C.5.3 Existing Asphalt

Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

C.6 Tape Application
Apply the tape when both the air and surface temperature are 40 degrees F and rising.

Apply tape in the groove as per manufacturer's recommendations. If manufacturer's recommendations require surface preparation adhesive

1) For the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee:

   · Apply SPA-60 during May 1 to September 30, both dates inclusive due to Volatile Organic Compound Limitations..

   · Apply P-50 during October 1 to April 30, both dates inclusive. –

2) For the remainder counties:

   · Apply either adhesive.

Refer to the manufacturer's instructions for determining when the surface preparation adhesive is set.

Tamp the wet reflective pavement marking contrast tape with a tamper cart roller, with a minimum of a 200-lb load, cut to fit the groove. Tamp a minimum of three complete cycles (6 passes) with grooved modified tamper roller cart.

D Measurement
The department will measure Pavement Marking Grooved Wet Reflective Contrast Tape (Width) for grooved applications in length by the linear foot of tape placed according to the contract and accepted.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
646.0841.S	Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	LF
646.0843.S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the material; and for removing temporary pavement marking, if necessary.
stp-646-022 (20120615)

60. General Requirements for Electrical Work.

All luminaire removal for lighting and walkway lighting shall not be conducted during the night.

Amend standard spec 651.2, Materials, by adding the following paragraph:

The approved products list is located at:
http://www.dot.wisconsin.gov/business/engrserv/docs/ap3/electrical.pdf.

61. Intelligent Transportation Systems (ITS) – Control of Materials.

Standard spec 106.2 – Supply Source and Quality
Add the following to standard spec 106.2:

Existing equipment shall be salvaged and reinstalled by the contractor. This equipment includes the following:

Salvaged Items (1003-10-76)
(1) Microwave Detector Assembly

Salvaged Items (1003-10-81)
(2) Microwave Detector Assemblies (1003-10-81)
(1) Bluetooth Sensor (1003-10-81)
(1) ITS Field Cabinet (1003-10-81)
(1) Ethernet Switch (1003-10-81)
(1) Microwave Detector Assembly (1003-10-76)

The department will furnish a portion of equipment to be installed by the contractor. This department-furnished equipment includes the following:

Department-Furnished Items (1003-10-81)
(2) Detector, Serial Data Interface Microwave Radar (1003-10-81)
(1) Lightning Arrester (1003-10-81)
(2) IP wireless 5.8 GHZ radio/antenna (1003-10-81)
(1) Ethernet Switch (1003-10-81)

Contact Dean Beekman, STOC, at (414) 227-2154 to obtain a copy of the manufacturer list and contact names for department-furnished equipment.

Pick-up small department-furnished equipment, such as communications devices, cameras, and controllers, from the department's Statewide Traffic Operations Center (STOC), 433 W. St. Paul Ave., Milwaukee, WI 53203 at a mutually agreed upon time during normal

state office hours. Contact the department's STOC at (414) 227-2166 to coordinate pick-up of equipment.

Large department-furnished equipment, such as camera poles will be delivered by the supplier to a contractor-controlled site within Enter County Name County. Delivery will not necessarily be in a "just in time" manner. Store the equipment until field installation. Provide location details and a contact for delivery coordination upon receiving the contract's Notice to Proceed.

Transportation of the equipment between the electric shop and the field or interim location(s) shall be the responsibility of the contractor.

Standard spec 106.3 – Approval of Materials
Add the following to standard spec 106.3:

Design/Shop Drawings
Prior to the purchase and/or fabrication of any of the components listed herein, and for any non-catalog item shown on the Material and Equipment List specified above, and no more than 30 days after notice to proceed, submit five copies of design drawings and shop drawings, as required, to the department for review. The items and the drawings that represent them shall meet the requirements of the standard specifications.

Design drawing submissions shall consist of signed and certified designs, design drawings, calculations, and material specifications for required items.

Shop drawings will be required for, but not limited to the following:

1. Mounting assemblies for the vehicle speed and classification sensors, including their attachment to the structure.

2. Mounting LED warning signs to the sign structure.

3. Mounting detail for dynamic message signs.

4. Any contractor-designed structure or foundation.

The department will complete its review of the material within 30 days from the date of receipt of the submission, unless otherwise specified. The department will advise the contractor, in writing, as to the acceptability of the material submitted. The department may determine that if no exceptions were taken for the item, it is approved, and no further action is required by the contractor; or the item may be partially or totally rejected, in which case modify and/or amend the submittal as required by the department and resubmit the item within 14 days. At this time, the review and approval cycle described above will begin again.
stp-670-005 (20150630)

62. Intelligent Transportation Systems – General Requirements.

A Description

A.1 General

This contract includes furnishing and installing elements for an Intelligent Transportation System (ITS) in or along the existing roadway as shown on the plans.

Unusual aspects of this project include:

1. The project includes working on cables and equipment that are carrying data between roadside equipment and the department's Statewide Traffic Operations Center (STOC). Interruption of this service is not expected to perform this work. If an interruption is determined necessary, it must be done on a weekend, and must be done in a way that minimizes communications outages for the existing equipment. Notify the department's STOC at least 48 hours in advance of the planned interruption.

2. The department will furnish some of the equipment to be installed. Make a reasonable effort to discover defects in that equipment prior to installing it.

A.2 Surge Protection

Equip every ungrounded conductor wire entering or leaving any equipment cabinet with a surge protector. For purposes of this section, multiple cabinets on a single pole or foundation are considered a single cabinet.

B Materials

B.1 General

Furnish equipment and component parts for this work that are new and have high quality workmanship. All controls, indicators, and connectors shall be clearly and permanently labeled in a manner approved by the engineer. All equipment of each type shall be identical.

All electrical equipment shall conform to the standards and requirements of the Wisconsin Electrical Code, the National Electrical Manufacturers Association (NEMA), National Electric Safety Council (NESC), Underwriter's Laboratory Inc. (UL) or the Electronic Industries Association (EIA), when applicable. All materials and workmanship shall conform to the requirements of the National Electrical Code (NEC), Rural Electrification Administration (REA), Standards of the American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), requirements of the plans these special provisions, the standard specifications, and to any other codes, standards, or ordinances that may apply. All system wiring, conduit, grounding hardware and circuit breakers shall be in conformance with the National Electrical Code. Whenever reference is made to any of the standards mentioned, the reference shall be considered to mean the code, ordinance, or standard that is in effect at the time of the bid advertisement.

B.2 Outdoor Equipment
All conductive connectors, pins (except pins connected by soldering), and socket contacts shall be gold plated. Acrylic conformal coating shall protect each circuit board side that has conductive traces. Except for integrated circuits containing custom firmware, all components shall be soldered to the printed circuit board.

To prevent galvanic corrosion, all connections between dissimilar metals shall incorporate a means of keeping moisture out of the connection. Where the connection need not conduct electricity, interpose a non-absorbing, inert material or washer between the dissimilar metals. Use nonconductive liners and washers to insulate fasteners from dissimilar metals. Where the connection shall conduct electricity, use a conductive sealant between the dissimilar metals. Alternatively, use an insulating gasket and a bond wire connecting the two metal parts.

B.3 Custom Equipment
Equipment that is not part of the manufacturer's standard product line, or that is made or modified specifically for this project, shall conform to the following requirements:

Where practical, electronics shall be modular plug-in assemblies to facilitate maintenance. Such assemblies shall be keyed to prevent incorrect insertion of modules into sockets.

All components shall be available from multiple manufacturers as part of the manufacturers' standard product lines. All shall be clearly labeled with the value, part number, tolerance, or other information sufficient to enable a technician to order an exact replacement part.

Lamps used for indicator purposes shall be light-emitting diodes.

The printed circuit boards shall be composed of "two-ounce" copper on 1/16-inch thick fiberglass epoxy or equivalent type construction. Holes that carry electrical connections from one side of the boards to the other shall be completely plated through. Multilayer printed circuit boards shall not be used. The name or reference number used for the board in the drawings and maintenance manuals supplied to the department shall be permanently affixed to each board.

All components shall be mounted so the identifying markings are visible without moving or removing any part, if practical.

B.4 Environmental Conditions
Equipment shall continue to operate as specified under the following ranges of environmental conditions, except as noted in the specifications for individual pieces of equipment.

1. **Vibration and Shock:** Vehicle speed and classification sensors and any other equipment mounted atop poles or on structures shall not be impaired by the continuous vibration caused by winds (up to 90 mph with a 30 percent gust factor) and traffic.
2. **Duty Cycle:** Continuous
3. **Electromagnetic Radiation:** The equipment shall not be impaired by ambient electrical or magnetic fields, such as those caused by power lines, transformers, and motors. The equipment shall not radiate signals that adversely affect other equipment.
4. Electrical Power:

    a. **Operating power:** The equipment shall operate on 120-volts, 60-Hz, single-phase unless otherwise specified. It shall conform to its specified performance requirements when the input voltage varies from 89 to 135 volts and the frequency varies +3 Hz.
    b. **High frequency interference:** The equipment operation shall be unaffected by power supply voltage spikes of up to 150 volts in amplitude and 10 microseconds duration.
    c. **Line voltage transients:** The equipment operation shall be unaffected by voltage transients of plus or minus 20 percent of nominal line voltage for a maximum duration of 50 milliseconds. Equipment in the field shall meet the power service transient requirements of NEMA Standard TS-2 when connected to the surge protectors in the cabinets.
5. Temperature and Humidity:

    a. **Field equipment:** Equipment in the field shall meet the temperature and humidity requirements of NEMA Standard TS-2. Liquid crystal displays shall be undamaged by temperatures as high as 165 degrees F, and shall produce a usable display at temperatures up to 120 degrees F.
    b. **Equipment in Controlled Environments** shall operate normally at any combination of temperatures between 50 degrees F and 100 degrees F, and humidity between 5 percent and 90 percent, non-condensing, and with a temperature gradient of 9 degrees F per hour.

B.5 Patch Cables and Wiring

All cables and wiring between devices installed in a single cabinet, in separate cabinets sharing a single concrete base, and in a pole-mounted cabinet and equipment sharing the same pole will be considered incidental to the installation of the devices and no separate payment will be made for them. It is anticipated that this will include fiber optic patch cables, between termination panels and Ethernet switches, 10/100 MBPS Ethernet cables, RS-232 cables between individual devices and terminal servers, and power cables between individual devices and power sources within the cabinets.

B.6 Surge Protection

Low-voltage signal pairs, including twisted pair communication cable(s) entering each cabinet shall be protected by two-stage, plug-in surge protectors and shall be installed on both ends of camera control cables. The protectors shall meet or exceed the following minimum requirements:

1. The protectors shall suppress a peak surge current of up to 10k amps.

2. The protectors shall have a response time less than one nanosecond.

3. The protector shall clamp the voltage between the two wires at a voltage that is no more than twice the peak signal voltage, and clamp the voltage between each wire and ground at 50 volts.

4. The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.

5. The protector shall also contain a resettable fuse (PTC) to protect against excessive current.

6. There shall be no more than two pairs per protector.

7. It shall be possible to replace the protector without using tools.

Cables carrying power to curve signs shall be protected at the cabinet by grounded metal oxide varistors of appropriate voltages. The varistors shall be at least 0.8 inch in diameter.

C Construction

C.1 Thread Protection

Provide rust, corrosion, and anti-seize protection at all thread assemblies of metallic parts by coating (non-spray) the mating surfaces with an approved compound. Failure to use an approved compound will result in no payment for the items to which coating was to have been applied.

C.2 Cable Installation

When installing new cables into conduits containing existing cables, remove the existing cables and reinstall the existing cables simultaneously with the new cables. Take every precaution necessary to protect the existing cables. In the event of avoidable damage to the existing cables, replace all damaged cables, in-kind, at no additional expense to the department. When cables are pulled into conduit, use a cable pulling lubricant approved by the cable manufacturer. Submit documentation supporting manufacturer approval of the lubricant to the engineer.

C.3 Wiring
Every conductor, except a conductor contained entirely within a single piece of equipment, must terminate either in a connector or on a terminal block. Provide and install the connectors and terminal blocks where needed, without separate payment. Use approved splice kits instead of connectors and terminal blocks for underground power cable splices.

Permanently label and key connectors to preclude improper connection. Obtain prior engineer approval for the labeling method(s) prior to use.

Terminal blocks shall be affixed to panels that permanently identify the block and what wire connects to each terminal. This may be accomplished by silk screening or by installing a laminated printed card under the terminal block, with the labels on portions of the card that extend beyond the block. Installation of terminal blocks by drilling holes in the exterior wall of the cabinet is not acceptable.

Use barriers to protect personnel from accidental contact with all dangerous voltages.

Do not install conductors carrying AC power in the same wiring harness as conductors carrying control or communication signals.

Arrange wiring, including fiber optic pigtails, so that any removable assembly can be removed without disturbing wiring that is not associated with the assembly being removed.

Communication and control cables may not be spliced underground, except where indicated on the plans.

Cables in the Statewide Traffic Operations Center or in communications hubs which are not contained within a single cabinet shall have at least 10 feet of slack.

C.4 System Operations
If the contractor's operations unexpectedly interrupt Intelligent Transportation Systems (ITS) service, notify the engineer immediately and restore service within 24 hours. Repair all damaged facilities to the condition existing before the interruption. If service is not restored within 24 hours, the department may restore service to any operating device and deduct restoration costs from payments due the contractor.

C.5 Surge Protection
Arrange the equipment and cabinet wiring to minimize the distance between each conductor's point of entry and its surge protector. Locate the protector as far as possible from electronic equipment. Ensure all wiring between the surge protectors and the point of entry is free from sharp bends.

C.6. Lightning Arrester
Install a lightning arrester at each microwave detector location as shown on the plans to protect the equipment and conductors from the damaging effects of lightning.

D Measurement
No separate measurement will be made for the work described in this article.

E Payment
No separate payment will be made for the work described in this article. All work described in this article is included under the ITS items in the contract.

63. Intelligent Transportation Systems – Conduit.

Add the following to standard spec 671.2:

671.2.4 Locate Wire
Furnish and install a No. 14 AWG stranded copper wire for future locate purposes through each conduit run. Connect the locate wire by using a wire nut at each pull box, manhole, or other access point. Alternatively, use a single wire through the access points. All material furnished under this item shall meet the requirements of standard spec 655.
671-005 (20150630)

64. Install Conduit Into Existing Item, Item 652.0700.S.

A Description
This special provision describes installing proposed conduit into an existing manhole, pull box, junction box, communication vault, or other structure.

B Materials
Use 2-inch and 3-inch nonmetallic conduit as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the requirements of pertinent provisions of the standard specifications.

C Construction
Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate sized hole for the entering conduit(s) at a location within the structure without disturbing the existing cabling and without hindering the installation of new cabling within the installed conduit. Fill void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure. Tamp backfill into place.

D Measurement
The department will measure Install Conduit Into Existing Item by the unit, acceptably installed. Up to five conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of five, or conduits entering at significantly different entry points into the existing pull box, manhole, or junction box will constitute multiple units of payment.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
652.0700.S	Install Conduit Into Existing Item	EACH

Payment is full compensation for excavating, drilling holes; furnishing and installing all materials, including bricks, coarse aggregate, sand, bedding, and backfill; for excavating and backfilling; and for furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; and for making inspections.
652-070 (20100709)

65. Lighting Units Walkway, 659.0700; Luminaires Utility LED-A, 659.1115.

Append standard spec 659.3.3 with the following:

Remove and dispose of existing HPS luminaires on existing lighting poles to remain in place.

Append standard spec 659.3.4 with the following:

Remove and dispose of existing walkway HPS luminaires on existing walkway poles to remain in place.

66. Field System Integrator, Item 670.0100 and ITS Documentation, Item 670.0200.

Add the following to standard spec 670.5:

Payment is full compensation for projects 1003-10-76 and 1003-10-81.

67. Install Ethernet Switch, Item 675.0400.S.

A Description
This special provision describes installing an Ethernet switch, and providing all necessary associated wiring.

B Materials
Provide all necessary cables between the Ethernet switch and terminal server or other device.

C Construction
Install the Ethernet switch in the pole mounted cabinet. Connect it to devices as shown on the plans, or as directed by the engineer.

D Measurement
The department will measure Install Ethernet Switch by the unit, installed according to the contract, tested, and accepted.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
675.0400.S	Install Ethernet Switch	EACH

Payment is full compensation for installing an Ethernet switch; furnishing all necessary incidental hardware; and making all necessary connections.

68. Concrete Pavement Flexural Strength.

This special provision describes accepting concrete pavement based on flexural strength. Conform to standard spec part 7 as modified in this special provision.

Add the following to standard spec table 701-2:

TEST	TEST STANDARD
Flexural Strength of Concrete	AASHTO T97

Replace standard spec 710.5.5 with the following:

710.5.5 Strength

(1) Cast all 6-inch by 12-inch cylinders or 6-inch x 6-inch x 21-inch beams in a set from the same sample. Do not cast more than one set of specimens from a single truckload of concrete. Mark each specimen to identify the lot and sublot or location on the project it represents.

(2) Provide facilities for initial curing. For up to 48 hours after casting, maintain the temperature adjacent to the specimens in the range of 60 to 80 F and prevent moisture loss. Between 24 and 48 hours after casting, transport the specimens to a department-qualified laboratory for standard curing until testing at 28 days.

(3) Determine the 28-day strength of each specimen in psi. Test each specimen to failure. Use a testing machine that automatically records the date, time, rate of loading, and maximum load of each specimen. Provide a printout of this information for each specimen tested.

Replace standard spec 715.2.1(2) *with the following:*

(2) The contractor need not provide separate laboratory mix designs for high early strength concrete nor provide routine 28-day strength tests during placement for high early strength concrete.

Replace standard spec 715.2.3.1(1) *with the following:*

(1) Use at least 5 pairs of beams to demonstrate the flexural strength of a mix design. Use either laboratory strength data for new mixes or field strength data for established mixes. Demonstrate that the 28-day flexural strength of the proposed mix will equal or exceed the 85 percent within limits criterion specified in standard spec 715.5.2.

Replace standard spec 715.3.1.1(1) *with the following:*

(1) Provide slump, air content, concrete temperature, and strength test results as specified in standard spec 710.5. Provide a battery of QC tests, consisting of results for each specified property, using a single sample randomly located within each sublot. Cast 3 specimens for strength evaluation.

Replace standard spec 715.3.1.3(1) *with the following:*

(1) The department will perform verification testing for air content, slump, temperature, and strength at a minimum of 1 verification test per lot.

Replace standard spec 715.3.2.1 with the following:

715.3.2.1 General

(1) The department will make pay adjustments for strength on a lot-by-lot basis using the strength of contractor QC specimens. The department will use flexural strength for pavements and compressive strength for structures. The department will assess concrete for removal and replacement based on a sublot-by-sublot analysis of core strength. Perform coring and testing, fill core holes with an engineer approved non-shrink grout, and provide traffic control during coring.

(2) Randomly select two QC strength specimens to test at 28 days for percent within limits (PWL). Compare the strengths of the two randomly selected QC specimens and determine the 28-day sublot average strength as follows:

- If the lower strength divided by the higher strength is 0.9 or more, average the two QC specimens.
- If the lower strength divided by the higher strength is less than 0.9, break one additional specimen and average the two higher strength specimens.

Replace standard spec 715.3.2.2.1 with the following:

715.3.2.2.1 Pavement

(1) If a sublot strength is less than 500 psi, the department may direct the contractor to core that sublot to determine its structural adequacy and whether to direct removal. Cut and test cores according to AASHTO T24 as and where the engineer directs. Have an HTCP-certified PCC technician I perform or observe the coring.

(2) The sublot pavement is conforming if the compressive strengths of all cores from the sublot are 2500 psi or greater or the engineer does not require coring.

(3) The sublot pavement is nonconforming if the compressive strengths of any core from the sublot is less than 2500 psi. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

Replace standard spec 715.5.1 with the following:

715.5.1 General

(1) The department will pay incentive for strength under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
715.0415	Incentive Strength Concrete Pavement	DOL
715.0502	Incentive Strength Concrete Structures	DOL

(2) Incentive payment may be more or less than the amount the schedule of items shows.

(3) The department will administer disincentives for strength under the Disincentive Strength Concrete Pavement and Disincentive Strength Concrete Structures administrative items.

(4) The department will adjust pay for each lot using PWL of the 28-day sublot average strengths for that lot. The department will measure PWL relative to the lower specification limit of 650 psi for pavements and 4000 psi for structures. The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under standard spec 715.3.1.2.1.

(5) Submit strength results to the department electronically using the MRS software. The department will validate contractor data before determining pay adjustments.

(6) All coring and testing costs under standard spec 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

Replace standard spec 715.5.2 with the following:

715.5.2 Pavements

(1) The department will adjust pay for each lot using equation "QMP 6.01" as follows:

Percent within Limits (PWL)	Pay adjustment (dollars per square yard)
≥ 95 to 100	(0.2 x PWL) - 19
≥ 85 to < 95	0
≥ 50 to <85	(2.0/35 x PWL) - 170/35
<50	-2

(2) The department will not pay incentive if the lot standard deviation is greater than 60 psi.

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 600 psi by $2 per square yard.

(4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

69. Roadway Embankment, Item SPV.0035.001.

Conform to standard spec 207 unless modified by this special provision.

A Description
Replace standard spec 207.1(1) with the following:

This section describes providing and placing, in embankments and in miscellaneous backfills, material obtained under the bid items in the roadway and drainage excavation or excavation for structure sections; or material obtained under Borrow as specified in standard spec 208 and modified under these special provisions.

B Materials
Conform to standard spec 207.2.

C Construction
Conform to standard spec 207.3.

D Measurement
Replace standard spec 207.4(1) with the following:

The department will measure Roadway Embankment by the cubic yard acceptably completed in its final location using the method of average end areas, with no correction for curvature or settlement, except as follows:

1. The engineer and contractor mutually agree to an alternative volume calculation method;

2. The method of average end areas is not feasible.

If it is not possible to compute volumes of the various classes of roadway and drainage embankment by the method of average end areas due to erratic location of isolated deposits, the department may compute the volumes by alternative methods involving three-dimensional measurements.

The department will not measure embankment material beyond the limits of the required slopes as shown on the plans.

E Payment
Replace standard spec 207.5(1) with the following:

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.001	Roadway Embankment	CY

Payment is full compensation for providing material from roadway excavation or borrow material; and for forming, compacting, shaping, sloping, trimming, finishing, and maintaining the embankments.

The department will pay for furnishing all work associated with select borrow material separately as specified under the Select Borrow bid item.

The department will pay for erosion control, fertilizing, and seeding of borrow sites and associated areas separately as specified for borrow sites and material disposal sites in 628.5.1.
(10/31/2016)

ASP-5 will be applied to this item. The Fuel Usage Factor for this item is 0.23.

70. High Performance Concrete (HPC) Masonry Structures, Item SPV.0035.740.

This special provision describes specialized material and construction requirements for high-performance concrete used in bridge structures. Conform to standard spec 501, 502, and 509, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement and Structures.

MODIFY STANDARD SPECIFICATIONS AS FOLLOWS:

501.2.5.4.1 General
(1) The department will sample and test aggregates as follows:

- LA Wear (100 and 500 revolutions)……..…….AASHTO T 96
- Sodium Sulfate Soundness (R-4, 5 cycles)…….AASHTO T 104
- Freeze-Thaw Soundness…….AASHTO T 103
- Lightweight Pieces[1]……. AASHTO T 113

- [1]Material having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of lightweight pieces by dividing the

weight of lightweight pieces in the sample retained on the 3/8-inch sieve by the weight of the total sample.

(2) Contact the engineer a minimum of 4 weeks prior to placing concrete to collect a sample of aggregates proposed for the project. The engineer will obtain the sample, or observe the contractor obtaining the sample. The sampler must be HTCP certified to sample aggregates.

(3) The department will randomly sample coarse aggregate for lightweight pieces testing at least once at least once per 10,000 cubic yards during HPC structure concrete production.

(4) Use clean, hard, durable crushed limestone free of an excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances, or adherent coatings considered injurious.

(5) Use virgin aggregates only.

501.2.5.4.2 Deleterious Substances
Replace paragraph one with the following:

The amount of deleterious substances must not exceed the following percentages:

DELETERIOUS SUBSTANCE	PERCENT BY WEIGHT
Shale	1.0
Coal	1.0
Clay lumps	0.3
Soft fragments	5.0
Any combination of above	5.0
Thin or elongated pieces based on a 3:1 ratio	15.0
Materials passing the No. 200 sieve	1.5
Lightweight Pieces	2.0

501.2.5.4.3 Physical Properties
Replace paragraph one with the following:

The percent wear must not exceed 35, the weighted soundness loss must not exceed 6 percent, and the weighted freeze-thaw average loss must not exceed 12 percent.

501.3.2.4.3.3 Extended Delivery Time
Delete paragraph one.

501.3.5.1 General
Replace paragraph one with the following:

Use central-mixed concrete as defined in standard spec 501.3.5.1(2) for all work under this special provision.

501.3.5.2 Delivery
Replace paragraph three with the following:

Deliver and completely discharge concrete within one hour beginning when adding water to the cement, or when adding cement to the aggregates. A decrease in air temperature below 60° F or the use of department-approved retarders does not increase the discharge time.

501.3.7.1 Slump
Replace the entire text with the following:

Use a 2-inch to 4-inch slump.

Perform the slump tests for concrete according to AASHTO T 119.

501.3.8.2.1 General
Replace the entire text with the following:

The contractor is responsible for the quality of the concrete placed in hot weather. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions the contractor will take to control concrete temperature if the concrete temperature at the point of placement exceeds 80° F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.

If the concrete temperature at the point of placement exceeds 80° F, do not place concrete for items covered in this special provision.

Notify the engineer whenever conditions exist that might cause the temperature at the point of placement to exceed 80° F. If project information is not available, the contractor should obtain information from similar mixes placed for other nearby work.

The department will pay $0.75 per pound for the quantity of ice required to reach a target temperature of 75° F if the following conditions are met:

The un-iced concrete temperature exceeds 80° F.

The contractor has performed the actions outlined in the contractor’s accepted temperature control plan.

The contractor elects to use ice.

501.3.8.2.2 Bridge Decks
Replace the entire text with the following:

Do not place concrete for bridge decks when the ambient air temperature is above 80° F. For concrete placed in bridge decks, submit a written evaporation control plan at each pre-pour meeting. In that plan, outline the actions the contractor will take to maintain concrete surface evaporation at or below 0.15 pounds per square foot per hour. Do not place concrete for bridge decks without the engineer's written acceptance of that evaporation control plan. Perform the work as outlined in the evaporation control plan.

If predicting a concrete surface moisture evaporation rate exceeding 0.15 pounds per square foot per hour, do not place concrete for bridge decks.

Provide evaporation rate predictions to the engineer 24 hours prior to each bridge deck pour.

Compute the evaporation rate from the predicted ambient conditions at the time and place of the pour using the nomograph, or computerized equivalent, specified in CMM 5.25, figure 1. Use weather information from the nearest national weather service station. The engineer will use this information to determine if the pour will proceed as scheduled.

At least 8 hours before each pour, the engineer will inform the contractor in writing whether or not to proceed with the pour as scheduled. If the actual computed evaporation rate during the pour exceeds 0.15 pounds per square foot per hour, at the sole discretion of the engineer, the contractor may be allowed to implement immediate corrective action and complete the pour.

502.3.5.4 Superstructures
Delete paragraph five.

502.3.7.8 Floors
Delete paragraphs 13, 14 and 15.

Add the following to the end as paragraphs 19, 20 and 21:

(19) Do not place bridge deck concrete more than 10 feet ahead of the finishing machine. If there is a delay of more than 10 minutes during the placement of a bridge deck, cover all concrete (unfinished and finished) with wet burlap to protect the concrete from evaporation until placement operations resume.

(20) Hand finishing, except for the edge of deck, must be kept to a minimum. The finishing machine must be equipped with a pan behind the screed. Apply micro texture using a broom or turf drag following the use of a 10-foot straight edge. Only finish by hand as necessary to close up finished concrete. Begin wet curing the deck immediately following the micro texture.

(21) For bridge decks with a design speed of 40 mph or greater, provide longitudinal grooving according to the provision included in this contract.

502.3.8.1 General
Replace paragraph one with the following:

Maintain adequate moisture throughout the concrete mass to support hydration for at least 14 days.

502.3.8.2.1 General
Replace the entire text with the following:

Wet cure the concrete for bridge decks, sidewalks and raised medians for 14 days by use of a soaker hose system, or other engineer-approved methods. Cover the finished surface of bridge decks and overlays with one layer of wetted burlap or wetted cotton mats within 10 minutes after the finishing machine has passed. Apply the burlap/cotton gently so as to minimize marking of the fresh concrete. Keep the first layer of burlap/cotton continuously wet until the bridge deck or overlay is sufficiently hard to apply a second layer of wetted burlap/cotton. Immediately after applying the second layer of burlap/cotton, continue to keep the deck wet until placing and activating the soaker hose system. Throughout the remainder of the curing period, keep the burlap/cotton continuously wet with soaker hoses hooked up to a continuous water source. Inspect the burlap/cotton twice daily to ensure the entire surface is moist. If necessary, alter the soaker hose system as needed to ensure the entire surface is completely covered and stays moist. After 48 hours from the time of completion of the bridge deck or overlay pour, the soaker hose system and burlap/cotton may be covered with polyethylene sheeting. Provide a continuous flow of water through the soaker hose system for the entire curing period.

Do not uncover any portion of the deck at any time for any reason during the first seven days of the curing period.

Set up and test the fogging system before each bridge deck, raised median and sidewalk pour. The fogging system must remain set up and in operating condition for the duration of the pour.

502.3.8.2.3 Decks
Delete the entire text.

502.3.8.2.4 Parapets
Replace the entire text with the following:

Cure the inside and outside concrete faces and tops of railings or parapets by covering with wetted burlap immediately after form removal and surface finish application. Keep the burlap thoroughly wet for at least seven days; or by covering for the same period with thoroughly wet polyethylene-coated burlap conforming to standard spec 501.2.9.

Secure coverings along all edges to prevent moisture loss.

502.3.9.6 Bridge Decks
Replace paragraph two with the following:

Protect the underside of the deck, including the girders, for bridge deck and overlay pours by housing and heating when the national weather service forecast predicts temperatures to fall below 32° F during the cold weather protection period. Maintain a minimum temperature of 40° F in the enclosed area under the deck for the entire 14-day curing period.

502.5.1 General
Replace paragraph one with the following:

The department will pay for plan quantities according to standard spec 109.1.1.2 at the contract unit price and incidentals necessary to complete the work under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.740	High Performance Concrete (HPC) Masonry Structures	CY

710.5 Sampling and Testing
Add the following:

710.5.7 Chloride Penetration Resistance
(1) For each new or changed mix design, measure chloride penetration resistance according to AASHTO T 277 (Rapid Chloride Permeability Test) at a frequency of 1 test per 3 months (quarterly) of production.

(2) Permeability samples for AASHTO T 277 testing must be stripped of their molds and wet cured to an age of 7 days in a standard moist room or water tank. After 7 days, submerge the samples in water heated to 100° F until an age of 28 days. Upon completion of the curing process, obtain one sample from each cylinder and test according to AASHTO T 277.

(3) Ensure that the initial accepted mix designs meet the chloride penetration resistance limit of 1500 coulombs based on the AASHTO T 277 Rapid Chloride Permeability test. Chloride resistance testing conducted quarterly using AASHTO T 277 Rapid Chloride. Permeability Test during production will not be used for acceptance of previously accepted mixes and concrete masonry mixed and placed according to the contract requirements. For quarterly chloride resistance test results exceeding 1500 coulombs, the department may require adjustment of the concrete mix going forward to improve the chloride penetration resistance.

715.2.3.2 Structures
Replace paragraph one with the following:

(1A) Develop and test each mix to be used for HPC Masonry Structures. Produce a laboratory trial mix for each mix, as well as a trial mix from each plant used to supply the project. Test all mixes at a department-qualified laboratory.

(1B) The laboratory trial mix data must include the results of the following tests:

1. AASHTO T 119 Slump of Hydraulic Cement Concrete.
2. AASHTO T 121 Mass per Cubic Foot, Yield.
3. AASHTO T 152 Air Content.
4. AASHTO T 22 Compressive Strength.
5. AASHTO T 277 Rapid Determination of the Chloride Permeability of Concrete, using the modified curing procedure according to standard spec 710.5.7. (2) herein.
6. AASHTO T 309 Temperature.
7. Water Cement Ratio.

(1C) The 28-day compressive strength must be greater than or equal to 4000 psi. The 28-day results of the permeability test must be less than or equal to 1500 coulombs.

Replace paragraph two with the following:

(2) Provide a minimum cementitious content of 470 pounds per cubic yard and a maximum cementitious content of 540 pounds per cubic yard. For all superstructure and substructure concrete, unless the engineer approves otherwise in writing, conform to one of the following:

1. Use class C fly ash or grade 100 or 120 slag as a partial replacement for Portland cement. For binary mixes use 15% to 30% fly ash or 20% to 30% slag. For ternary mixes use 15% to 30% fly ash plus slag in combination. Percentages are stated as percent by weight of the total cementitious material in the mix.

Use a type IP or IS blended cement.
(10/26/2016)

71. Baseline CPM Progress Schedule, Item SPV.0060.001; CPM Progress Schedule Updates and Accepted Revisions, Item SPV.0060.002.

Replace standard spec 108.4 with the following:

108.4 Critical Path Method Progress Schedule

108.4.1 Software

Use the latest version of Oracle (Primavera) Project Manager (P6) version 7.0 or newer to prepare the Initial Work Plan Schedule, Baseline CPM Progress Schedule, and all Monthly CPM Updates.

108.4.2 Personnel

Designate a Project Scheduler who will be responsible for scheduling the Work and submit for department approval a professional resume describing a minimum of three years of developing and managing specific CPM scheduling experience on major (interstate) highway reconstruction projects or projects of similar size and complexity. This includes recent experience using Oracle P6 software.

108.4.3 Definitions
The department defines terms used in standard spec 108.4 as follows:

Activity
A task, event or other project element on the schedule, during the course of the project that contributes to completing the project. Activities have a description, scheduled (or actual) start and finish dates, duration and one or more logic ties.

Critical Path
The longest continuous path of activities through the project that has the least amount of total float. In general, a delay on the critical path will extend the scheduled completion date.

Critical Path Method (CPM)
A network based planning technique using activity durations and the relationships between activities to mathematically calculate a schedule for the entire project.

Construction Activity
Construction activities are discrete work activities performed by the contractor, subcontractors, utilities, or third parties within the project limits.

CPM Progress Schedule
A Critical Path Method (CPM) Progress Schedule is a network of logically related activities. The CPM schedule calculates when activities can be performed and establishes the critical or longest continuous path or paths of activities through the project.

Data Date
The earliest work period after the date through which a schedule is current. Everything occurring earlier than the data date is "as-built" and everything on or after the data date is "as-planned."

Department's Preliminary Construction Schedule
The department's schedule for the contract work, developed during design, and provided to the contractor for informational purposes only.

Float
Float, as used herein, is the total float of an activity; i.e., it is the amount of time between the date when an activity can start (the early start), and the date when an activity must start (the late start). In cases where the total float of an activity has a different value when calculated based on the finish dates, the lower (more critical) value will govern.

Forecast Completion Date
The completion date(s) predicted by the latest accepted CPM Update, which may be earlier or later than the contract completion date(s), depending on progress.

Fragnet
A group of logically-related activities, typically inserted into an existing CPM schedule to model a portion of the project, such as the work associated with a change order or delay impact.

Initial Work Plan Schedule
The Initial Work Plan (IWP) Schedule is a time-scaled CPM schedule showing detailed activities for the first 90 calendar days of work and summary level activities for the remainder of the project.

Intermediate Milestone Date
A contractually required date for the completion of a portion of the work, so that a subsequent portion of the work or stage of traffic phasing may proceed.

Master Program Schedule
The department's schedule for the overall I-39/90 Corridor Management Program, including intermediate milestone dates contract completion dates and codes.

Procurement Activity
Procurement activities are activities of duration reflecting contractor preparation and submittal of material submittals, department approval of material submittals, material fabrication durations, and material delivery durations.

Work Breakdown Structure (WBS)
A framework for organizing the activities that makes up a project by breaking the project into successively greater detail by level. A WBS organizes the project work. It does not address the sequencing and scheduling of project activities.

108.4.4 Department's Preliminary Construction Schedule
The department's Preliminary Construction Schedule was developed during the design phase of the contract. Its purpose was to illustrate work areas per Stage/Phase of construction. Durations and resource availability are department estimates only. Contractor is solely responsible for its use of means and methods and as such is fully responsible for determining durations based on own estimate of production and available resources. The suggested use of the department's Preliminary Construction Schedule is ease of identification of work availability during each Stage/Phase and the logical relationship between the Stages/Phases. The Preliminary Construction Schedule reflects one possible approach to completing the work, consistent with the traffic phasing requirements and the interim/final completion date(s) contained in the contract. The logic contained in the Preliminary Construction Schedule is not intended to alter or supplement contract requirements for the phasing of the work, but to reflect those requirements. Any reliance on the department's Preliminary Construction Schedule is at the sole risk of the contractor.

108.4.5 Contractor's Scheduling Responsibilities
The CPM Schedule shall be a tool capable of forward planning and monitoring the Project. The schedule will further be used as a communication tool between the contractor and the

department. It will be used to illustrate the plan, develop what-if scenarios, and analyze impacts. The accuracy and completeness of the CPM Schedule will benefit both the contractor and the department. The CPM schedule is the contractor's committed plan to complete all work within the completion deadlines.

The contractor shall submit to the department initial and monthly update schedules, each consistent in all respects with the time and order of work requirements of the contract. The project work shall be executed in the sequence indicated on the current accepted schedule. Schedules shall show the order in which the contractor proposes to carry out the work with logical links between activities, and calculations made using the critical path method to determine the controlling operation or operations. The contractor is responsible for assuring that each schedule shows a coordinated plan for complete performance of the work. Schedule the Work in the manner required to achieve the completion date and intermediate milestone dates specified in the Prosecution and Progress Special Provision.

Contactor project management personnel shall actively participate in the schedule development, the monthly updating of progress, and all schedule revisions throughout the entire duration of the contract. Subcontractors and suppliers working on the project shall also contribute in developing and maintaining an accurate schedule.

108.4.6 Submittals

108.4.6.1 Initial Work Plan Schedule

Submit an Initial Work Plan (IWP) Schedule consisting of the following:

1.1 Provide a detailed plan of activities to be performed during the first 90 calendar days of the contract. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.

1.2 Provide activities as necessary to depict administrative work, including submittals, reviews, material procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days).

1.3 Provide activities as necessary to depict third-party work related to the contract.

1.4 Provide summary activities for the balance of the project beyond the first 90 calendar days of the project. Summary activities may have durations greater than 28 calendar days (20 business days).

1.5 Submit the IWP Schedule, including the P6 native data file (XER) and an electronic file (PDF). Submit the P6 native data file (XER) and an electronic file (PDF) to the following DOT email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.

1.6 Following department receipt of the IWP Schedule, allow ten business days for department review and return of comments. Within five business days of receiving the IWP Schedule, the department will schedule a workshop for the contractor to present the IWP Schedule and to answer questions raised during the department's review. Provide formal responses to the comments and resubmit the IWP Schedule as necessary. A notice to proceed will not be issued until the engineer accepts the IWP Schedule. The department will use the IWP Schedule to monitor the progress of the work until the Baseline CPM Progress Schedule is accepted.

1.7 Submit an updated version of the IWP Schedule on a bi-monthly basis (every other week) until the engineer accepts the Baseline CPM Progress Schedule. With each update, include actual start dates, completion percentages, and remaining durations for activities started but not completed. Include actual finish dates for completed activities.

108.4.6.2 Baseline CPM Progress Schedule

Within ten business days of receiving an approved IWP Schedule, as required in the contract, submit a Baseline CPM Progress Schedule and written narrative consisting of the following:

1. Develop the Baseline CPM schedule. The Baseline CPM is the contractor's committed plan to complete the Work within the time frames required to achieve the contract completion date and intermediate milestone dates. The department will use the schedule to monitor the progress of the work. Include the following:

   1.1 Provide a detailed plan of activities to be performed during the entire contract duration, including all administrative and construction activities required to complete the work as described in the contract documents. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.

   1.2 Provide activities as necessary to depict administrative work, including submittals, reviews, material procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days).

   1.3 Provide activities as necessary to depict third-party work related to the contract. Third-party work activities may include but is not limited to Railroads, Utilities, Real Estate and local government agencies.

   1.4 Make allowance for specified work restrictions, non-working days, time constraints, calendars, and potential or approved weather delays; reflect involvement and reviews by the department; and coordination efforts with adjacent contractors, utility owners, and other third parties.

   1.5 With the exception of the Project Start Milestone and Project Completion Milestone, all activities must have predecessors and successors. Predecessors and successors shall not be linked to the same activity with different relationship types. The start of an activity shall have a Start-to-Start or Finish-to-Start relationship with preceding activities. The completion of an activity shall have a

Finish-to-Start or Finish- to-Finish relationship with succeeding activities. Do not use Start-to-Finish relationships. Do not use Finish-to-Start relationships with a lag or overlap unless the engineer accepts requested exceptions. Include and discuss request for exceptions in the schedule narrative provided with each schedule submittal.

1.6 Schedule activities shall include the following:

a. A clear and legible description. The use of abbreviations shall be limited. Descriptions shall include an action verb describing the work performed, a basic description of the materials used, and, where applicable, a general location of the work.

b. Codes for Contract ID / WisDOT Project ID, Responsibility, Stage, and Area. The department may provide additional codes for use within department reporting.

c. Activities shall carry a single Responsibility assignment.

1.7 Schedule all intermediate milestones in the proper sequence and input as either a "Start on or After" or "Finish on or Before" date. Do not use other constraint types, within the software, without prior approval by the engineer. Do not apply date constraints on any work tasks without prior approval by the engineer. Provide predecessors and successors for each intermediate milestone as necessary to model each Stage of the Work. Unless the engineer accepts a requested exception, the schedule shall encompass all the time in the contract period between the starting date and the specified completion date.

1.8 Develop and submit an anticipated cash-flow curve for the project within the P6 application, based on the Baseline CPM schedule by assigning cost values to selective work tasks within the CPM schedule that total the value of the contract.

1.9 Provide budgeted quantities consistent with the bid quantities on selective construction tasks within the CPM schedule. The engineer will provide a summarized list of 30 generalized quantity items that will be identified and applied by the contractor using the P6 software application.

2. Provide an electronic PDF of the CPM schedule depicting the CPM network. Organize the logic diagram by grouping related activities, based on the activity codes in the CPM.

3. Provide a written narrative with the Baseline CPM explaining the planned sequence of work, as-planned critical path, critical activities for achieving intermediate milestone dates, traffic phasing, and planned labor and equipment resources. Use the narrative to further explain:

3.1 The basis for activity durations in terms of production rates for each major type of work (number of shifts per day and number of hours per shift), and equipment usage and limitations.

3.2 Use of constraints.

3.3 Use of calendars.

3.4 Estimated number of adverse weather days on a monthly-basis.

3.5 Scheduling of permit and environmental constraints, and coordination of the schedule with other contractors, utilities, and public entities.

4. Submit the Baseline CPM schedule including the P6 native data file (XER) and an electronic file (PDF). Submit the P6 native data file (XER) and an electronic file (PDF) to the following dot email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.

Within ten business days of receiving the Baseline CPM schedule, the department will schedule a workshop, review the submittal, and return review comments.

Within five business days after the Baseline CPM scheduling workshop, the department will either accept the contractor's Baseline CPM schedule or provide additional comments. Within five business days, address the department's comments and resubmit a revised Baseline CPM, including formal responses to the department's review comments. If the engineer requests justifications for activity durations provide information that may include estimated labor, equipment, unit quantities, and production rates used to determine the activity duration.

The engineer will accept the Baseline CPM based solely on whether the schedule is complete as specified in this section and meets the requirements of the contract. The engineer's acceptance of the schedule does not modify the contract and does not relieve the contractor from meeting the contract requirements.

The department will not consider requests for contract time extensions as specified in 108.10 or additional compensation for delay specified in standard spec 109.4.7 until the department accepts the Baseline CPM schedule.

108.4.6.3 Monthly CPM Schedule Updates

Submit CPM Schedule updates on a monthly basis after acceptance of the Baseline CPM Schedule. With each CPM Schedule update, include the following:

1. Actual start dates, completion percentages, and remaining durations for activities started but not completed, and actual finish dates for completed activities, through the final acceptance of the project.

    1.1 Additional activities as necessary to depict additions to the contract by changes and logic revisions as necessary to reflect changes in the contractor's plan for prosecuting the work.

    1.2 Include a narrative report that includes a brief description of monthly progress, changes to the critical path from the previous update, sources of potential delay, work planned for the next 30 calendar days, and all changes to the CPM Schedule. Changes to the CPM Schedule include the addition or deletion of activities, changes to activity descriptions, original durations, relationships, overlap (lag/lead), constraints, calendars, or previously recorded actual dates. Justify changes to the CPM Schedule in the narrative by describing associated

changes in the planned methods or manner of performing the work or changes in the work itself.

1.3 Submit each CPM Schedule update; including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM's. Submit the P6 native data file (XER), the electronic file (PDF), responses to the DOT review comments, and the progress schedule update narrative to the following dot email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.

1.4 Within ten business days of receiving each CPM Schedule update, the engineer will provide formal review comments and schedule a meeting, if necessary, to address comments raised in the department's review. Address the department's comments and resubmit a revised CPM Schedule update within five business days after the department's request.

108.4.6.4 Three-Week Look-Ahead Schedules

Submit Three-Week Look-Ahead Schedules on a weekly basis after NTP. The schedule shall be prepared by computer. Provide three hard copies (11" x 17") to the engineer. With each Three-Week Look-Ahead include:

1. Activities underway and as-built dates for the past week.

1.1 Actual as-built dates for completed activities through final acceptance of the project.

1.2 Planned work for the upcoming three-week period.

1.3 The activities of the Three-Week Look-Ahead schedule shall include the activities underway and critical RFIs and submittals, based on the CPM schedule. The Three-Week Look-Ahead may also include details on other activities not individually represented in the CPM schedule.

1.4 On a weekly basis, the department and the contractor shall agree on the as-built dates depicted in the Three-Week Look-Ahead schedule or document any disagreements. Use the as-built dates from the Three-Week Look- Ahead schedules for the month when updating the CPM schedule.

108.4.6.5 Weekly Production Data

Provide estimated and actual weekly production curves for items of work on a weekly basis for applicable items of work as requested by the department including but not limited to the following:

1. Provide data on the following items by the units specified:

1.1 Underground Facilities – LF per week

1.2 Retaining Walls – SF per week

- MSE Walls
- Other Wall Types

1.3 Bridge Construction

- Foundation Pile – EACH per week
- Foundation/Substructure Concrete – CY per week
- Structural Steel Girders – EACH per week
- Prestressed Concrete Girders – EACH per week
- Deck Formwork – SF per week

1.4 Roadway Excavation – CY per week

1.5 Roadway Embankment – CY per week

1.6 Roadway Structural Section

- Grading/Subgrade Preparation – SY per week
- Base Material Placement – TON per week
- Base Material Subgrade Preparation – SY per week
- Asphaltic Base – TON per week
- Asphaltic and HMA Pavements – TON per week
- Concrete Pavement – SY per week
- Concrete Pavement – CY per week

1.7 Finishing Items – SY per week

Note: Base material shall include all breaker run, base aggregate, subbase items or other base items included in the contract. Provide production information for each individual base material item.

- For each item, indicate the actual daily production for the past week and the anticipated weekly production for the next week. Also include cumulative production curves showing the production information for each item to date.
- Submit the data in an electronic spreadsheet format at the same time the Three-Week Look-Ahead is submitted. On a weekly basis, the department and the contractor shall agree on the production data or document any disagreements.

108.4.7 Progress Review Meetings

After completing the weekly submittal of the Three-Week Look-Ahead Schedules and production data, attend a weekly progress review meeting to review the submittals with the department. At the meeting, address comments as necessary, and document agreement or disagreement with the department.

After submitting the monthly update and receiving the engineer's comments, attend a job-site meeting, as scheduled by the engineer, to review the progress of the schedule. At that meeting, address comments as necessary, and document agreement or disagreement with the department. The monthly meeting will be coordinated to take place on the same day and immediately before or after a weekly meeting, whenever possible.

108.4.8 CPM Progress Schedule Revisions

A CPM Progress Schedule Revision may be submitted, prior to the next CPM Monthly Update, if necessary due to changes in the Work or project conditions as authorized by the engineer. Prepare the CPM Revision in the same format as required for CPM Monthly Updates, including justification for changes to the schedule. The process for comment and acceptance of a CPM Revision will be the same as for CPM Monthly Updates. If the CPM Revision is accepted, prepare the next monthly update based on the revised CPM. If the CPM Revision is rejected, prepare the next monthly update based on the previous month's update.

The engineer will monitor the progress of the work and may request revisions to the CPM schedule. Revise the schedule as requested by the engineer, and submit a CPM Progress Schedule Revision within ten business days of the request. The process for comment and acceptance of a CPM Revision will be the same as for CPM Monthly Updates. The engineer may request that the contractor revise the CPM schedule for one or more of the following reasons:

1. The forecast completion date is scheduled to occur more than 14 calendar days after the contract completion date.

    1.1 An intermediate milestone is scheduled to occur more than 14 calendar days after the date required by the contract.

    1.2 The engineer determines that the progress of the work differs significantly from the current schedule.

    1.3 A contract change order requires the addition, deletion, or revision of activities that causes a change in the contractor's work sequence or the method and manner of performing the work.

108.4.9 Documentation Required for Time Extension Requests

The information below is to be applied in compliance with Standard Specifications 108.9 and 108.10 and does not replace the above mentioned specifications. To request a time extension to an intermediate milestone date or the contract completion date associated with changes to the work, provide a narrative document separate from the monthly schedule update narrative document that specifically details the work added or deleted and the other activities affected and or impacted based on the latest accepted CPM Monthly Update. For added work including impact delay activities, submit a proposed fragment of activities to be added or revised in the CPM schedule, indicating how the fragment is to be tied to the CPM schedule.

To request a time extension to an intermediate milestone date or the contract completion date associated with delays to the work, provide a narrative detailing the affected activities and the cause of the delay, based on the latest accepted CPM Monthly Update. Requests for time extensions due to delays shall meet the following criteria:

1. For requests to extend the contract completion date, include a detailed description of how the delay, or additional work, affected the project's critical path, based on the latest accepted CPM Monthly Update.

    1.1 For requests to extend an intermediate milestone date, include a description of how the delay, or additional work, affected the controlling (longest) path to the milestone, based on the latest accepted CPM Monthly Update.

    1.2 The department and the contractor agree that the float is not for the exclusive use or financial benefit of either party. Either party has the full use of the float on a first come basis until it is depleted.

108.4.10 Measurement for CPM Progress Schedule

The department will measure Baseline CPM Progress Schedule for each required submittal acceptably completed.

The department will measure CPM Progress Schedule Updates and Accepted Revisions for each required submittal acceptably completed.

108.4.11 Payment for CPM Progress Schedule

The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.001	Baseline CPM Progress Schedule	EACH
SPV.0060.002	CPM Progress Schedule Updates and Accepted Revisions	EACH

Payment is full compensation for furnishing all work required under these bid items. The department will pay the contract unit price for the Baseline CPM Progress Schedule after the department accepts the schedule. Thereafter, the department will pay the contract unit price for each monthly CPM Progress Schedule update acceptably completed. The department will pay the contract unit price for CPM Revisions, if the department accepts the revision. The department will not pay for proposed revisions that are not accepted.

Failure to provide satisfactory schedule submittals within the times specified will result in liquidated damages being assessed and may result in the department managing to the contractor's latest accepted schedule until such time as the contractor submits an updated or revised schedule.

If the contractor does not provide satisfactory progress schedule submittals, updates and revisions, within the time specified by these specifications, the department will assess liquidated damages. The department will deduct the amount of $500 per calendar day due to the contractor for every calendar day that the submission of the Initial Work Plan Schedule, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule is delinquent.

If the Initial Work Plan Schedule, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule update submittals are not received by the department within 10 business days after the submittal time specified, the department will only make progress payments for the value of materials, as specified in standard spec 109.6.3.2.1, until the schedule is submitted.
(1/5/2017)

72. Emergency Access Gate, Item SPV.0060.003.

A Description

This special provision describes furnishing and erecting emergency access gates per the plan detail at locations shown on the plans or as directed by the engineer, and hereinafter provided.

Perform this work according to standard spec 616, 634, and 637, except as herein after modified.

B Materials

Furnish all fence and gate materials according to standard spec 616 and according to the details shown in the plan. Gates and fence materials shall be chain link and according to standard specs 616.2.1 and 616.2.3.

Latch Chains shall be ASTM A413/A413M, Grade 30. The chain shall be galvanized, 2'-0" in length, and have size requirements consistent with 3/8" regular link. All latch chains used on keeper posts shall have an attached 'S' link attached to the end of the chain as shown in the plans.

Keeper posts shall be furnished according to standard spec 634.

Furnish new signs as shown in the plan and according to standard spec 637. Furnish and install sign connections as shown in the plans.

C Construction

Construct the gate as shown in the plan and according to standard spec 616.3.1 and 616.3.3.

Attach each sign to the face of the chain link gate as shown in the plan.

D Measurement

The department will measure Emergency Access Gate by each unit for each emergency access gate, acceptably installed and completed. Each Emergency Access Gate consists of the 8 feet of fencing on each side of the gate area, the gate, signs, latch chains, and keeper posts.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.003	Emergency Access Gate	EACH

Payment is full compensation for furnishing and installing all materials including excavation and removing all excess excavation; for setting posts including placing concrete; for erecting and tensioning all fencing components; for providing the gate; for signs; for keeper posts; for latch chains and 'S' hooks; and for furnishing all bolts, hardware, and other connection pieces found in the plan.
(4/6/2015)

73. Access Gate 6-Foot, Item SPV.0060.004.

A Description
This special provision describes furnishing and erecting access gates per the plan detail at locations shown on the plans or as directed by the engineer, and as hereinafter provided.

B Materials
Furnish a round steel pipe tubing gate that has a minimum of 6 horizontal rails. Overall dimensions shall be a minimum of 48-inches tall and a minimum of 66-inches wide. Dimensions between horizontal rails, overall vertical height, and overall horizontal width can vary slightly from the plan detail if approved by the engineer.

Gate will have round, heavy steel pipe tubing with a minimum outside diameter of 1-3/4 -inches constructed of a minimum 20 gauge thickness. Steel pipe tubing shall be painted. The paint color shall be either green or gray.

Provide Grade "A" Concrete Masonry according to standard spec 501 to set 6-inch diameter x 8-foot treated wood gate posts.

Provide zinc-coated bolts, nuts and washers that are according to ASTM Designation A325.

C Construction
All field welded surfaces shall have all paint removed and be properly cleaned prior to welding. After welding is complete, surface shall be primed with premixed rustproof paint followed by two field coats of enamel paint

D Measurement
The department will measure Access Gate 6-Foot as each individual unit, acceptably installed and completed

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.004	Access Gate 6-Foot	EACH

Payment is full compensation for furnishing and installing all materials including the gate, welding, hardware, latch chain, gate posts, and concrete masonry. The department will supply the keyed lock.

74. Fixed Message Sign Portable Support, Item SPV.0060.005.

A Description
This special provision describes the construction of portable sign supports for fixed message signs as shown on the plans.

B Materials
Use lumber and hardware conforming to standard spec 507.

C Construction
Construct the fixed message sign portable support according to the detail on the plans. Grade pad surrounding location of portable support such that the support can be located on a level surface.

D Measurement
The department will measure Fixed Message Sign Portable Support as each location, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item.

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.005	Fixed Message Sign Portable Support	EACH

Payment is full compensation for furnishing and installing fixed message sign portable supports; for preparing a level location for sign support and for removing the portable supports at the completion of the work.

75. Test Pits, Item SPV.0060.008.

A Description
This special provision describes excavating test pits and backfilling as directed by the engineer and geotechnical engineer and as hereinafter provided. Test pits are for the purpose of locating and relieving trapped water within the existing roadway embankments.

B Materials
Construct test pits conforming to standard spec 205.2 for Roadway Excavation.

Provide materials to conform to standard spec 312.2 for Select Crushed Material.

C Construction

All excavation of test pits shall be performed during daytime hours. The engineer and geotechnical engineer (Hassen A. Hassen, hassen.hassen@dot.wi.gov) shall be present during excavation.

The location of test pits shall be determined by the engineer and geotechnical engineer. Contact the engineer at least 4 weeks prior to earthwork operations. Test pits shall be excavated at least 2 weeks prior to roadway excavation operations. Different timelines, to meet particular project's needs, may be required by the engineer and geotechnical engineer.

Excavate the foreslope of the existing roadway embankment beginning at the edge of the existing subgrade shoulder point at a slope of 1:1 down to the elevation of the toe of existing slope, but no lower than 1 foot above the ditch flow line if a ditch is present. Excavations shall be 10 feet wide measured parallel to the roadway shoulder. The bottom of the test pit shall be sloped to drain away from the roadway.

If water is present or seeping from the embankment, backfill with select crushed where the test pit is located on an embankment that is supporting live traffic. Place select crushed to stabilize the test pit and allow water to seep out. If the embankment is not supporting live traffic, then the test pit shall remain open and maintained until seeping stops or as approved by the engineer and geotechnical engineer.

If water is not present or seeping from the embankment, backfill the test pit with roadway embankment or a material approved by the engineer and geotechnical engineer.

D Measurement

The department will measure Test Pits by each unit, acceptably installed.

The department will measure Select Crushed Material as specified in standard spec 312.4.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.008	Test Pits	EACH

Payment is full compensation for all engineer approved work specified including excavating, sloping, shaping, stockpiling, backfilling with roadway embankment, compacting, and maintaining.

If select crushed material is required for backfilling, the department will pay for select crushed under the select crushed item 312.0110. The department will pay for erosion control, if required, under the erosion control bid items.

(5/22/2017)

76. Removing Billboard Sign and Sign Structure, Item SPV.0060.009.

A Description
This special provision describes removing existing billboards and supports in accordance with the applicable sections of standard spec 638 and as hereinafter provided.

B (Vacant)

C Construction
Remove the complete billboard unit including signs, supports, footings, ladders, walkways, electrical systems and all appurtenances from the locations designated on the plans. Excavate to remove the footings 2 feet below the existing ground surface and provide adequate backfill and compaction of the removal area to eliminate settling. Restore the surface around the location to the same condition as surrounding area and as directed by the engineer. Billboards with multiple supports and signs at the same location, but not necessarily connected, will be considered one complete unit.

The contractor shall coordinate with electric utility owner for disconnection of the power service prior to removal of the billboard and billboard supports, if applicable. The power supply shall be removed to a location that allows safe termination and burying.

D Measurement
The department will measure Removing Billboard Sign and Sign Structure as each individual complete billboard unit removed, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.009	Removing Billboard Sign and Sign Structure	EACH

Payment is full compensation for removing the signs, supports, footings, ladders, walkways, electrical systems and all appurtenances associated with the billboard; for removal from the project site; for backfilling any necessary areas and coordination with utilities and following utility and OSHA removal requirements. Removed items are property of the contractor.

77. Covering Storm Sewer, Item SPV.0060.010.

A Description
This special provision describes how various sized storm sewer pipe stubs and storm sewer structure pipe cutouts will be covered to prevent sediment from infiltrating into the storm sewer system. The locations of covering storm sewer are shown on the plans.

B Materials
Furnish storm sewer stub covers made of a polyethylene film and plywood. Provide a polyethylene film meeting the following requirements:

Property Requirements	Value	Test Method
Tensile Strength, min.	40 lbf	ASTM D7003
Grab tensile strength, min.	50 lbf	ASTM D7004
Elongation at Breat, min.	400%	ASTM D7003
Hydrostatic Resistance	32 psi	ASTM D751
Permeability	0.058 g/100in ^{2}/day	ASTM E96 Pro. B

Provide plywood with a minimum thickness of 3/4-inch at storm sewer pipe stub locations.

C Construction
Completely cover the storm sewer openings with one continuous piece of polyethylene film. Cover a minimum of one foot of the stub length or one foot of the structure height with the polyethylene film and secure the polyethylene film to the storm sewer pipe stub or storm sewer structure.

Place a sheet of plywood to cover the opening of the storm sewer stub. Provide one continuous sheet and extend the plywood sheet a minimum of 2 inches beyond the outside diameter of the pipe on all sides. Place the plywood tight to the polyethylene film and the storm sewer stub and secure the plywood as necessary to prevent movement or separation from the pipe while backfilling the trench.

D Measurement
The department will measure Covering Storm Sewer by each individual covering storm sewer, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.010	Covering Storm Sewer	EACH

Payment is full compensation for furnishing, delivering, assembling, and installing all specified materials: and for removing and disposing of all materials when they are no longer needed in the contract work.

78. Concrete Cutoff Wall, Item SPV.0060.011.

A Description
Perform work according to the applicable provisions of standard spec 504 and as detailed in the plans.

B Materials
Provide concrete according to the applicable provisions of standard spec 504 and as detailed in the plans. Provide high strength galvanized steel adhesive anchors and washers according to the applicable provisions standard spec 502.2.12 and as detailed in the plans.

C Construction
Drill bolt holes in the locations shown on the plans after the concrete in the concrete cutoff wall is cured and use adhesive anchors to secure the endwall to the cutoff wall. Maintain existing drainage and provide any dewatering necessary for the work.

D Measurement
The department will measure Concrete Cutoff Wall as each individual concrete cutoff wall, acceptably completed.

E Payment
The department will pay for measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.011	Concrete Cutoff Wall	EACH

Payment is full compensation for furnishing all excavation and preparation; for providing all equipment and materials, including concrete, reinforcing steel, and adhesive anchors; for placing, finishing, protecting, and curing; for maintaining drainage and dewatering; for disposing of surplus excavation material; and for restoring the work site.

79. Manhole Structure 170B, Item SPV.0060.012.

Construct Manhole Structure 170B according to standard spec 611 and according to the plan details.

80. Utility Line Opening, Item SPV.0060.014.

A Description
This special provision describes excavating to uncover utilities for the purpose of determining elevation and potential conflicts as shown in the plans or as directed by the engineer.

B (Vacant)

C Construction
Perform the excavation using hydro-vac excavation and in such a manner that the utility in question is not damaged and the safety of the workers is not compromised.

Perform the utility line openings as soon as possible and at least 10 days in advance of proposed construction to allow any conflicts to be resolved with minimal disruption. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening is called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Utility line openings include a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

Approve and coordinate all utility line openings with the engineer. Notify the utility contacts listed in the plan of this work a minimum of 3 days prior to the work so they may be present when the work is completed.

D Measurement
The department will measure Utility Line Opening by each individual unit, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.014	Utility Line Opening	EACH

Payment is full compensation for the excavation required to expose the utility line; backfilling with existing material removed from the excavation; compacting the backfill material; restoring the site; and for cleanup.

Existing pavement, concrete curb, gutter, and sidewalk removals necessary to facilitate utility line openings shall not be considered part of or paid for under Utility Line Openings, but shall be considered separate and measured and paid for separately as removal items. Temporary pavement, concrete curb, gutter, and sidewalk items shall also be considered separate from Utility Line Openings and will be measured and paid for separately.

81. Barrier Wall Delineation, Item SPV.0060.015.

A Description
This special provision describes furnishing and installing barrier wall delineation at locations as listed in the plans, according to standard spec 633 and 637, and as hereinafter provided.

B Materials
Furnish a barrier delineation system that consists of Type SH reflective white or yellow sheeting laminated to a 0.040 corrugated aluminum base. The aluminum base shall be 6 inches high and 36 inches long prior to corrugation, with a finished size of 6 inches by 35 inches. The aluminum base shall have six pre-punched holes ¼” in diameter, located near both ends and centered on the base. Screws used for mounting the bases to the barrier wall shall be ¼” x 1” stainless steel anchors with a 5/16” nylon washer placed between the screw head and the base.

C Construction
The top of the section of delineation system shall be mounted 6” below the top of the barrier wall. Care must be taken to ensure a uniform height through the length of the installation. One 6 inch by 35 inch delineation system section shall be mounted at the same longitudinal location on each successive 12.5 foot length of barrier wall within the installation location(s) depicted in the plans, or as directed by the engineer.

D Measurement
The department will measure Barrier Wall Delineation by each section of the system, placed according to the contract and accepted.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.015	Barrier Wall Delineation	EACH

Payment is full compensation for cleaning and preparing the barrier wall surface, and for furnishing and installing the material.
(11/29/2016)

82. Cover Plates, Item SPV.0060.020.

A Description
This special provision describes furnishing, installing and removing a steel plate to cover and support embankment, pavement, and traffic loadings manholes, inlets and similar structures.

B Materials
Provide a 0.50-inch minimum thickness steel plate that extends, at a minimum, to the outside edge of the existing concrete structure.

C Construction
Install the cover plate to the structure securely using stainless steel anchors. Do not cover the plate until the engineer examines the installation.

D Measurement
The department will measure Cover Plates as each individual unit, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.020	Cover Plates	EACH

Payment is full compensation for furnishing, installing, and removing the cover plates.

The steel plates shall become the property of the contractor when no longer needed in the contract work.

83. Reinforced Concrete Endwalls and Grates, 24x38-Inch Special, Item SPV.0060.025; 29x45-Inch Special, Item SPV.0060.026; 38x60-Inch, Item SPV.0060.027; 48x76-Inch, Item SPV.0060.028.

A Description
Construct Reinforced Concrete Endwalls and Grates in accordance with standard spec 504, 505, 506, and 522, as shown on the plans, and as hereinafter provided.

B Materials
Furnish steel conforming to the requirements of standard spec 506.2.2.1. Furnish steel pipe conforming to the requirements of standard spec 506.2.3.6.

Furnish pipe grates galvanized in accordance to ASTM A123

Furnish angles and brackets galvanized in accordance to ASTM A123

Furnish required hardware galvanized in accordance to ASTM

C Construction
Repair pipes, rods, angles, and brackets on which the galvanized coating has been damaged in accordance to the requirements of AASHTO M36M.

D Measurement
The department will measure Reinforced Concrete Endwalls and Grates as each individual unit, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.025	Reinforced Concrete Endwalls and Grates, 24x38-Inch Special	EACH
SPV.0060.026	Reinforced Concrete Endwalls and Grates, 29x45-Inch Special	EACH
SPV.0060.027	Reinforced Concrete Endwalls and Grates, 38x60-Inch Special	EACH
SPV.0060.028	Reinforced Concrete Endwalls and Grates, 48x76-Inch Special	EACH

Payment is full compensation for constructing the endwalls including the grates; for all excavating, including forming bed; for all backfill.

84. Closed Inlet Cover, Item SPV.0060.040.

A Description
This special provision describes furnishing and installing a steel plate to cover inlets, and similar structures to support traffic loadings and asphaltic pavement or fill material. Cover plates will be left in place.

B Materials
Provide a 0.25-inch minimum thickness steel plate that extends to the outside edge of the existing masonry.

C (Vacant)

D Measurement
The department will measure Closed Inlet Cover as each individual closed inlet cover left in place, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.040	Closed Inlet Cover	EACH

Payment is full compensation for furnishing and installing the cover plate.

85. Clay Anti-Seepage Collar, Item SPV.0060.030.

A Description
This special provision describes furnishing and installing low permeable clay around reinforced concrete storm sewer pipe at the locations shown on the plans.

B Material
For each source, prior to excavating and hauling the low permeable clay to the project, submit the results of the laboratory tests described in Table 1. The laboratory testing shall document that each clay type from the source meets or exceeds the requirements.

The sample for the hydraulic conductivity test shall be remolded clay at a minimum dry density of 95% of the maximum dry density as determined by the Standard Proctor test ASTM D698 and at a moisture content required to achieve the required hydraulic conductivity, but with a minimum moisture content at or above the optimum moisture content as determined in the Standard Proctor test ASTM D698. Submit the test results to the engineer for review, two weeks prior to incorporation of the clay into the work.

C Construction
C.1.1 Subgrade
Compact the subgrade to a minimum density as defined in standard spec 207.3.6.2.

C.1.2 Placement
Place and compact low permeable clay in 6-inch lifts. Place each lift of low permeable clay in one continuous lift. The thickness of the low permeable clay shown on the plans should be measured perpendicular to the surface. Extend the clay collar a minimum of four feet along the length of pipe, centered on the joint, and construct the clay collar as shown on the plans.

Compact the low permeable clay to a minimum of 95% Standard Proctor ASTM D698 Maximum Dry Density. Break up clods greater than 4-inches in diameter prior to compaction. Provide all equipment necessary to adjust low permeable clay to the proper moisture content for compaction. Do not proceed with placement of additional lifts until all required low permeable clay testing and documentation has been completed for the previous lift. During placement of the low permeable clay the minimum moisture content shall be as defined by the testing performed in the source evaluation and with the following limits:

- No drier than the optimum moisture content as determined by the Standard Proctor test ASTM D698.

Table 1						
Reference	Number	Test Title	Requirements	Testing Frequency		
				Screening	QA/QC[3]	
					Top Cover	Sideslopes
ASTM[1]	D698	Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort	NA[2]	1/source	1/source	1/source
ASTM	D1140	Standard Test Methods for Amount of Material in Soils Finer Than the No. 200 (75-um) Sieve	Per NR 538[4]	2/source	1/2,220 cy per lift[5]	1/3,330 cy per lift
ASTM	D422	Standard Test Method for Particle-Size Analysis of Soils	Per NR 538	2/source	1/2,220 cy per lift	1/3,330 cy per lift
ASTM	D4318	Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.	Per NR 538	2/source	1/2,220 cy per lift	1/3,330 cy per lift
ASTM	D2487	Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)	Per NR 538	2/source	1/2,220 cy per lift	1/3,330 cy per lift
ASTM	D2922	Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)	Per NR 538	NA	200'x200' Grid/lift	240'x240' Grid/lift
ASTM	D5084	Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter	Per NR 538	1/source[6]	1/6,660 cy per lift[7]	1/10,000 cy per lift[7]

Notes:
1. ASTM = American Society of Testing and Materials.
2. NA = Not applicable.
3. QA/QC = Quality Assurance / Quality Control. One QA/QC test for the project quantity required.
4. NR 538 = Wisconsin Department of Natural Resources regulations Chapter NR 538 Beneficial Use of Industrial Byproducts.
5. A lift shall not exceed 8-inches.
6. The sample for the test shall be remolded at a minimum dry density of 95% of the maximum dry density as determined by the Standard Proctor test and at a moisture content required to achieve the required hydraulic conductivity, but with a minimum moisture content at or above the optimum moisture content as determined in the Standard Proctor test.
7. An undisturbed sample from a thinned walled sampler (Shelby tube).

Low permeable clay not meeting the above requirements will be removed as directed by the engineer. Removing, replacing, and/or reworking low permeable clay not meeting the above requirements shall be completed at no cost to the department.

D Measurement
The department will measure Clay Anti-Seepage Collar by each unit, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.030	Clay Anti-Seepage Collar	EACH

Payment is full compensation for testing, sampling, furnishing, hauling and placing of all materials; and for excavation, backfilling and disposing of excess material.

86. Temporary Concrete Barrier Gate, Item SPV.0060.031; Reinstall Temporary Concrete Barrier Gate, Item SPV.0060.032.

A Description
This special provision describes furnishing and installing Temporary Concrete Barrier Gate, moving as required for project staging, and removing upon completion of the project.

B Materials
Furnish a Temporary Concrete Barrier Gate and all necessary hardware and materials to install the gate.

The gate system shall be able to meet the recommended structural adequacy, occupant risk, and vehicle trajectory criteria set forth in the National Cooperative Highway Research Program Report (NCHRP) 350 for Test Level 3 for Longitudinal Barriers.

The gate shall be capable of preventing vehicle penetration, vaulting, and underriding during Test Level 3 Length of Need with Transition (TL-3 LON/T) impacts and shall smoothly redirect the vehicle.

The gate system shall be able to span a 24-foot minimum gap in concrete barrier.

The gate system shall fasten only to the temporary concrete barrier wall.

The gate system shall be able to be opened completely within 5 minutes once the moving process begins. The gate shall be able to be opened both by pivoting the gate on a hinge and by completely disconnecting the gate from the barrier wall and rolling it parallel to the temporary barrier wall.

Tools and materials required to open the gate system must be physically fastened to, or stored within, the gate system in such a way that prevents such tools and materials from becoming hazards during a crash. Tools and material must be accessible and usable immediately upon need.

C Construction
Install the gate system according to manufacturer's recommendations at contract-identified locations or as the engineer directs. Move and reinstall the gate system as required for contract staging.

Ensure that the gap between the traffic face of temporary barrier and the traffic face of the gate transition is to be less than ¼ of an inch. If manufacturer allows, the contractor may bolt thrie beam and thrie beam terminal connector to concrete barrier and the gate transition to bridge the gap in concrete barrier.

Provide and maintain the gates throughout the duration of the project. Repair any damage to the gates within 48 hours.

Upon completion of the work, remove the gate system and properly dispose of all materials.

D Measurement
The department will measure Temporary Concrete Barrier Gate as each individual gate system, acceptably completed.

The department will not make additional measurements for Temporary Concrete Barrier Gate if damaged during construction, including damage due to vehicular hits.

The department will measure Reinstall Temporary Concrete Barrier Gate as each individual unit, acceptably completed, if separate reinstallations are required for project staging as shown in the plans. The department will not measure reinstallations made solely to accommodate the contractor's means and methods.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.031	Temporary Concrete Barrier Gate	EACH
SPV.0060.032	Reinstall Temporary Concrete Barrier Gate	EACH

Payment for Temporary Concrete Barrier Gate is full compensation for providing, installing, maintaining, and removing the gate system.

Payment for Reinstall Temporary Concrete Barrier Gate is full compensation for moving and reinstalling the gate system.
(3/1/2017)

87. Salvage and Reinstall Light Pole, Item SPV.0060.350.

A Description
This special provision describes salvaging and reinstalling existing light pole at the I-39/90 westbound Beloit (SWEF) according to the pertinent provisions of standard spec 204 and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction

Salvage lighting equipment and poles, including transformer bases, poles, luminaire arms, and luminaire fixtures per plan from their concrete footing and disassemble out of traffic. Remove wiring/cabling per plan. Ensure that access handhold doors and hardware remain intact. Make a reasonable effort to inspect salvaged equipment for damage or defects.

If damage or defects discovered, contact Derrin Wolford of WisDOT SW Region at (608) 246-5360. The department assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Any equipment not identified as damaged or not working, prior to removal, shall be replaced by the contractor at no cost to the department.

Remove all lighting wire from the conduit system as noted on the plan. Dispose of wire and cable.

Complete the removal work immediately following shut down of this equipment. All luminaires shall be operational and lit during nighttime hours for the duration of the project. Once the existing light poles are disconnected and removed, the light poles shall be reinstalled and reconnected to the system on the same working day so that the luminaires are operational and lit by the nighttime hours.

Reinstall the salvaged lighting equipment at the new locations shown on the plan and according to standard spec 652.3, 657.3, 658.3, 659.3.

D Measurement

The department will measure Salvage and Reinstall Light Pole as each light pole, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.350	Salvage and Reinstall Light Pole	EACH

Payment is full compensation for removing, disassembling lighting equipment, scrapping of some materials, disposing of scrap material, salvaging the equipment, stowing, protecting from damage, and reinstalling the lighting equipment at the new locations specified in the plan.

88. Fiber Tracer Marker Post, Item SPV.0060.401.

A Description

This special provision describes providing and installing a fiber tracer marker post according to standard spec 671, as shown on the plans, and as hereinafter provided.

B Materials

Furnish fiber tracer marker post constructed from high-impact polycarbonate, with stainless steel hardware, five standard terminals, terminal enclosure for cathodic protection, an anchor bar, white and orange in color, fade resistant, ultraviolet stable, a minimum of 62 inches long, 3.5 inch outside diameter, vandalism resistant, and labeled with "WARNING FIBER OPTIC CABLE BELOW" on the top of the marker molded into the marker and not separately surface applied.

Furnish conduit rigid nonmetallic schedule 40 1-inch for connection into the communications vault.

C Construction

Install per manufacturer's recommended installation procedures at locations shown on the plans and as directed by the engineer.

Install so that the fiber tracer marker cannot be pulled out or removed manually. Install per manufacturers' recommendation.

Install conduit rigid nonmetallic schedule 40 1-inch into the communications vault. Connect locate wire to fiber tracer marker post terminal.

D Measurement

The department will measure Fiber Tracer Marker Post as each individual fiber tracer marker post, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.401	Fiber Tracer Marker Post	EACH

Payment is full compensation for providing and installing all materials, including conduit rigid nonmetallic schedule 40 1-inch, making all connections, restoration of ground to original condition including any topsoil, seed, fertilizer, mulch or sod; and for disposing of any surplus materials.

89. Pull Box Non-Conductive 24x42-Inch, Item SPV.0060.402.

A Description

This special provision describes furnishing and installing Pull Box Non-Conductive 24x42-Inch as shown on the plans.

B Materials
Furnish pull boxes, frames, and lids made of non-conductive material. Pull boxes, frames, and lids shall be suitable for Tier 15 loading as specified in ANSI/SCTE 77.

C Construction
The contractor may extend Pull Box Non-Conductive (size) as the plan details show using the same material as the pull box. Saw extensions parallel to the extension ring. Secure extension to original box as shown in the plan details.

Excavate, place coarse aggregate drain material, and backfill as the plan details show. Dispose of surplus or unsuitable materials as specified under standard spec 205.3.12.

Use covers stamped with "ELECTRIC" for traffic signal and lighting pull boxes or "WISDOT COMMUNICATIONS" for communications pull boxes.
Provide one (1) 24" length of #6 reinforcing steel to be driven vertically on the north side of the pull box.

D Measurement
The department will measure Pull Box Non-Conductive 24x42-Inch as each individual unit, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.402	Pull Box Non-Conductive 24x42-Inch	EACH

Payment is full compensation for Pull Box Non-Conductive 24x42-Inch for providing and installing pull boxes, frames, lids, aggregate, fasteners, reinforcing steel; conduit extensions less than 10 feet long including fittings; and for furnishing all excavating, backfilling and disposing of surplus material. The department will pay separately for engineer-directed pull box drain duct under the Conduit Rigid Nonmetallic bid items as specified in standard spec 652.5.

90. Remove Electrical Service Meter Breaker Pedestal, Item SPV.0060.403.

A Description
This special provision describes removing an in-place electrical service meter breaker pedestal and restoring the site to match surroundings.

B (Vacant)

C Construction
Prior to removing the meter breaker pedestal, contact Kyle Hemp of the WisDOT SW Region at (608) 246-5367 to arrange for disconnection of the service lateral and salvaging/removal of the meter housing by the electrical utility.

After disconnection of the service lateral and salvaging/removal of the meter housing by the electrical utility, carefully remove the meter breaker pedestal including any base or foundation. Properly dispose of meter breaker pedestal components off the job site and off department right-of-way.

Backfill the removal site with material similar to surrounding material and match the surrounding grade.

D Measurement
The department will measure Remove Electrical Service Meter Breaker Pedestal as each unit, acceptably removed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.403	Remove Electrical Service Meter Breaker Pedestal	EACH

Payment is full compensation for removing and disposing the meter breaker pedestal, and for backfilling and restoring the site to match surroundings.

91. Salvage and Reinstall Microwave Detector Assembly, Item SPV.0060.404.

A Description
This special provision describes removing, salvaging and reinstalling the existing microwave detector assembly, and the pole type 5 as indicated on the plans.

B (Vacant)

C Construction
Prior to removing, the engineer or delegated representative will determine if the microwave detector equipment is fully functional and inspect the equipment for damage. If the equipment is found to be non-functional or damaged, contact Kyle Hemp of the department's Southwest Region at (608) 246-5367.

Carefully remove the existing microwave detector equipment at the location indicated in the plans. Salvage all mounting hardware associated with the microwave detector equipment. Salvage all cables/wires connected from each device to the next connected device. Pull back the existing microwave detector cable to the pull box and store as indicated in the plans.

Carefully remove the in-place type 5 pole and transformer base from the concrete base at the location indicated in the plans. Salvage the type 5 pole, transformer base, and other equipment attached to the pole.

Reinstall the type 5 pole and the microwave detector equipment and make operational within seven calendar days of removal. Reinstall the microwave detector equipment as indicated in the plans and per manufacturer's recommendations. Pull the existing microwave detector cable from the pull box where it's stored to the new microwave detector assembly location and make all connections to make the microwave detector assembly operational.

Any materials to be reinstalled which are lost or damaged during removal, transport, or storage shall be repaired or replaced by the contractor at the expense of the contractor, or will be repaired or replaced by the department at the expense of the contractor, as determined by the engineer.

Storage and protection of the salvaged materials prior to reinstallation or delivery to the department's Southwest Region is the responsibility of the contractor and is included in this bid item.

D Measurement

The department will measure Salvage and Reinstall Microwave Detector Assembly as each individual salvage and reinstall microwave detector assembly, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.404	Salvage and Reinstall Microwave Detector Assembly	EACH

Payment is full compensation for removing, salvaging, transporting, protecting, storing, and reinstalling salvaged microwave detector equipment and type 5 pole; and for disconnecting and salvaging any necessary wiring.

92. Install IP Wireless 5.8 GHZ Radio/Antenna, Item SPV.0060.405.

A Description

This special provision describes installing a department-furnished IP radio and associated antenna.

B Materials

The department will furnish the IP radio and antenna. Provide all necessary Ethernet cabling between the IP radio and the associated Ethernet switch. Provide all necessary mounting hardware.

C Construction

Mount the IP radio and antenna as indicated on the plans. Make connections between the IP radio and antenna, as well as other devices as shown on the plans, or as directed by the engineer.

D Measurement
The department will measure Install IP Wireless 5.8 GHZ Radio/Antenna as each individual Install IP Wireless 5.8 GHZ Radio/Antenna according to the contract, tested and accepted.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.405	Install IP Wireless 5.8 GHZ Radio/Antenna	EACH

Payment is full compensation for installation of the IP radio and associated antenna, furnishing and installing all necessary hardware, making all necessary connections, and making the IP radio fully operational.

93. Communication Vault-Round, Item SPV.0060.406.

A Description
This special provision describes furnishing and installing Communication Vault-Round shown on the plans.

B Materials
Furnish pull boxes, frames, and lids made of non-conductive material. Vault, frames, and lids shall be suitable for Tier 15 loading as specified in ANSI/SCTE 77.

C Construction
Provide Communication Vault-Round, frames, and lids made of non-conductive materials. The contractor may extend Communication Vault-Round as the plan details show using the same material as the vault. Saw extensions parallel to the extension ring. Secure extension to original box as shown in the plan details. Excavate, place coarse aggregate drain material, and backfill as the plan details show. Dispose of surplus or unsuitable materials as specified under standard spec 205.3.12. Use covers labeled with “Electrical”.

D Measurement
The department will measure Communication Vault-Round as each individual unit, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.406	Communication Vault-Round	EACH

Payment for Communication Vault-Round is full compensation for providing and installing vault, frames, lids, aggregate, fasteners, reinforcing steel; and for furnishing all excavating, backfilling and disposing of surplus material. The department will pay separately for engineer-directed vault drain duct under the Conduit Rigid Nonmetallic bid items as specified in standard spec 652.5.

94. Compost Tube, Item SPV.0090.001.

A Description

This special provision describes furnishing and installing compost tubes or wattles as shown on the plans or as directed by the engineer and as hereinafter provided. Compost tube shall consist of cylinders of biodegradable compost encased within biodegradable netting.

B Materials

Provide compost that:

1. Is a well-decomposed, stable, weed-free, organic, commercially manufactured material resulting from the biological degradation and transformation of plant or animal-derived materials under controlled conditions designed to promote aerobic decomposition.
2. Is mature with regard to its suitability for serving as an erosion control Best Management Practice (BMP) as defined in the table below.
3. Is stable with regard to oxygen consumption and carbon dioxide generation.
4. Does not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth.
5. Does not possess objectionable odors.
6. Has a moisture content with no visible free water or dust produced when handling the material.

Compost feedstock may include, but is not limited to, yard waste, clean chipped wood, farm crop residue, farm animal manure, or vegetable food waste. Do not use materials that have been treated with chemical preservatives as a compost feedstock or as wood chips.

Test according to the United States Composting Council's “Test Methods for Examining of Composting and Compost (TMECC)”. Provide compost with the United States Composting Council's Seal of Testing Assurance Program (STA) certification and STA product label. The compost producer must be a participant in the United States Composting Council's Seal of Testing Assurance program.

Provide quality control documentation that includes the following:

1. The compost technical data sheet with the feedstock by percentage in the final compost product.
2. A certification that the compost meets federal and state health and safety regulations.
3. A copy of the producer's STA certification.
4. A certified report of tests performed by an STA-certified lab, verifying that the compost meets the requirements in the table below.

Compost must comply with the following:

PROPERTY	TEST METHOD	REQUIREMENT
Particle Size	*TMECC 02.02-B Sample Sieving for Aggregate Size Classification % Dry Weight Basis	100% Passing, 3 inch 90 – 100% Passing, 1 inch 70 – 100% Passing, ¾ in 30 – 75% Passing, ¼ inch Maximum length 6 inches
pH	TMECC 04.11-A Elastometric pH 1:5 Slurry Method pH Units	6.0-8.0
Soluble Salts	TMECC 04.10-A Electrical Conductivity 1:5 Slurry Method dS/m (mmhoscm)	Below 5.0
Moisture Content	TMECC 03.09-A Total Solids and Moisture at 70+/- 5 deg C % Wet Weight Basis	35 – 50
Organic Matter Content	TMECC 05.07-A Loss-On-Ignition Organic Matter Method (LOI) % Dry Weight Basis	Minimum 40% Max 60% ash content
Maturity	TMECC 05.05-A Germination and Vigor "Germination and Root Elongation" Seed Emergence Seedling Vigor % Relative to Positive Control	80 or Above
Physical Contaminants	TMECC 02.02-C Man Made Inert Removal and Classification: Plastic, Glass and Metal %>4mm fraction, dry mass (weight) basis	Less than 1%
Pathogens	Shall meet Class A requirements for pathogens as specified in NR 204.07(6)(a)	Pass
Chemical Contaminants	Shall meet pollutant concentrations as specified in NR 204.07(5)(c)	Pass
Carbon to Nitrogen Ratio	C:N	10:1 – 20:1

*TMECC refers to "Test Methods for the Examination of Composting and Compost," published by the United States Department of Agriculture and the United States Compost Council (USCC).

Immediately remove from the project, compost not conforming to the above requirements or taken from a source other than those tested, and replace the compost at no cost to the department.

The engineer reserves the right to sample compost at the jobsite.

Compost tube shall be a minimum of 5 inches in diameter. Netting material shall be clean, evenly woven, and free of encrusted concrete or other contaminating materials such as preservatives. Netting material shall be free from cuts, tears, or weak places and shall have a minimum lifespan of 6 months and a maximum lifespan of not more than 24 months.

Wood stakes used in securing Compost Tube shall be made from untreated Douglas fir, hemlock, or pine species. Wood stakes shall be 2-inch by 2-inch nominal dimension and 36 inches in length. Install/locate wood stakes per manufacturer's recommendations.

C Construction

Compost tube shall be installed as soon as construction will allow or when designated by the engineer. Compost tube installation and trenching shall begin from the base of the slope and work uphill prior to any topsoil or compost placement. Trenches shall, at all times, be perpendicular to the direction of flow down the slope. Excavated material from trenching shall be spread evenly along the uphill slope and be compacted using hand tamping or other method approved by the engineer. On gradually sloped or clay-type soils trenches shall be 2 to 3 inches deep. On loose soils or on steep slopes, trenches shall be 3 to 5 inches deep, or half the thickness of the Compost tube, whichever is greater.

The contractor shall exercise care when installing wattles to ensure the method of installation minimizes the disturbance of waterways and prevents sediment or pollutant discharge into water bodies.

C.1 Maintenance

Maintain Compost tube until the project has been completed or directed otherwise. Routinely inspect Compost tube for any material dislodgement. Replace and redress any dislodged material.

D Measurement

The department will measure Compost Tube by the linear foot of tube, acceptably installed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.001	Compost Tube	LF

Payment is full compensation for furnishing and installing Compost Tube as shown in the plans or as directed by the engineer; including the required trenching and subsequent spreading of trenched material after the embankment is stabilized; and the furnishing and installing of wood stakes to secure Compost Tube.
(9/6/2016)

95. Reinstall Temporary Snow Fence, Item SPV.0090.002.

A Description

This special provision describes removing, storing, and reinstalling temporary snow fence on to woven wire right-of-way fence to block snow from crossing a highway.

B (Vacant)

C Construction

Remove existing snow fence at locations shown on the plans. Store the removed snow fence in a location approved by the engineer. Once grading operations are completed and new woven wire right-of-way fence is installed, reinstall the existing temporary snow fence. Reinstall the fence by securely fastening the snow fence to the woven wire right-of-way fence with galvanized wire. Contractor is required to replace any existing temporary snow fence damaged during the removal, storage or reinstallation of the existing temporary snow fence. Reinstall snow fence prior to November 15, 2019.

D Measurement

The department will measure Reinstall Temporary Snow Fence by the linear foot, acceptably removed, stored and reinstalled.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.002	Reinstall Temporary Snow Fence	LF

Payment is full compensation for removing, storing, and reinstalling temporary snow fence, including galvanized fastening wire and all other materials required to reinstall the temporary snow fence.

96. Concrete Pavement Joint Sealing, Item SPV.0090.016.

A Description

This special provision provides for the sealing of the longitudinal joint located a distance, as shown on the plans, from the base of S42 and S42A concrete barrier only when this joint is created by a full-depth sawcut. Joint sealing shall consist of cleaning the joint in preparation for sealing and sealing the joint in the concrete pavement with a hot applied joint sealing material.

B Materials

All designated joints shall be sealed with a hot applied joint sealant conforming to the Specification for Joint and Crack Sealants, Hot-Applied, for Concrete and Asphalt Pavements, ASTM Designation D6690, type II. A Certification of Compliance shall be furnished to the engineer prior to application.

Sawed joints designated to be sealed under this bid item will not require Concrete Protective Surface Treatment as described in a separate article of these special provisions.

C Construction

The operation of sealing shall be performed as soon as practicable upon elapse of the curing period and in any event prior to the time traffic of any kind uses the pavement.

Joints shall not be sealed until they have been inspected and approved by the engineer.

Application of the joint sealer shall be made when the joint surfaces are clean and dry.

Immediately before sealing the joint, thoroughly clean the joints of all laitance, curing compound and other foreign material. Exposed joint faces shall be cleaned by sandblasting, or by water blasting with sufficient pressure to thoroughly and completely clean the joint. A multiple-pass technique shall be used until the surfaces are free of material that might prevent bonding. For final cleaning immediately prior to installation of the sealer, the joints shall be blown clean with oil-free compressed air. The joint faces must be surface dry when sealant is applied.

The sealing compound shall be heated to the pouring temperature recommended by the manufacturer in an approved kettle or tank, constructed as a double boiler, with the space between the inner and outer shells filled with oil or other satisfactory heat transfer medium. The heating kettle shall be equipped with a mechanical agitator, positive temperature control and an approved dial thermometer for checking temperatures of the compound. The heating kettle, if and when operated on concrete, shall be properly insulated against the radiation of heat to the concrete surface.

The sealing compound shall not be heated above the maximum safe heating temperature. The maximum safe heating temperature shall be determined from tests made on samples from each lot or shipment of the material delivered to the project. When so approved by the engineer, the manufacturer's recommended maximum safe heating temperature may be used in lieu of test determinations where relatively small quantities of sealer are used. Any material heated above the maximum safe heating temperature shall be discarded.

Pouring of joints shall be made when the sealing material is at the required temperature and, insofar as practicable, the sealing compound shall be maintained at a uniform temperature during pouring operations. Pouring shall not be permitted when the temperature of the sealing compound in the applicator, as it is applied to the joint, is more than 10° F below the recommended pouring temperature. Pouring of the molten sealer in the joint opening shall be done with such equipment that the sealer completely fills the joint opening without

overflowing on the adjoining surface and when finished, after shrinkage, the sealer is approximately flush with the adjoining surfaces. In the event satisfactory sealing of a joint is not accomplished in a single pouring, the sealing compound shall be placed in two pours. At least one-half of the required amount shall be placed in the first pouring, and the second pouring shall follow the first as soon as practicable after the first pouring has attained maximum shrinkage but not later than one hour after the first pouring.

D Measurement
The department will measure Concrete Pavement Joint Sealing by the linear foot in place along the joint, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.016	Concrete Pavement Joint Sealing	LF

Payment is full compensation for cleaning the joint, and for furnishing and applying the joint sealant.
(1/31/2017)

97. Pipe Boring & Jacking 36-Inch, Item SPV.0090.017; 48-Inch, Item SPV.0090.018.

A Description
This special provision describes boring and jacking Culvert Pipe Reinforced Concrete Class V (Size) and Storm Sewer Pipe Reinforced Concrete Class V (Size) shown on the plans and details as hereinafter provided. The pipes will be jacked in place beneath IH 39 and the Union Pacific Railroad as shown on the plans unless otherwise directed by the engineer.

B Materials
Culvert Pipe Reinforced Concrete Class V (Size) and Storm Sewer Pipe Reinforced Concrete Class V (Size) shall meet the requirements of standard spec 522 and 608.

Furnish a casing pipe conforming to ASTM A-53-B with minimum yield strength of 35,000 psi. Casing pipe to be placed by jacking methods shall be of sufficient thickness and axial strength to withstand the forces encountered during the jacking process. The casing pipe shall be sized to accommodate the largest outside diameter of the carrier pipe (including pipe bells) and allow for deflection of the casing pipe and installation of wood blocking or factory-fabricated spacers. Casing pipe shall have a bituminous outside coating and a minimum wall thickness for E-80 loading. The casing pipe field and shop welds shall conform with the American Welding Society (AWS) standard specifications. Field welds shall be complete penetration, single-bevel groove type joints. Welds shall be airtight and continuous for the entire circumference of the pipe and shall not increase the outside pipe diameter by more than ¾-inch, nor shall there be intrusion of the weld metal into the bore of the casing.

Furnish grout between the casing pipe and existing ground containing cement according to ASTM C150, Type I or Type II; water according to standard spec 501; and sand according to ASTM C404, Size No. 1. The grout shall fill the voids between the casing pipe and the existing ground and have a minimum compressive strength of 100 psi, attained within 24 hours and sufficiently fluid to inject through lining and fill voids, with prompt setting to control grout flow.

Furnish grout for the annular space between the casing pipe and the carrier pipe consisting of three parts sand according to ASTM C144 to one part cement according to ASTM C150.

C Construction

Provide plans and calculations for boring and jacking culvert pipe and storm sewer to the engineer for approval prior to construction of the culvert pipe. Do not work on the culvert pipe or storm sewer until the engineer has approved the plans and calculations.

Pipe shall be bored and jacked in place without disturbing IH 39 and the Union Pacific Railroad above the pipe, or disrupting traffic on IH 39 and the rail operations on the Union Pacific Railroad.

Pipe boring and jacking operations shall begin within two days after excavating the bore and/or receiving pits.

Any pits that result in a drop-off greater than two feet and steeper than 3 horizontal to 1 vertical shall be separated from live traffic lanes by Concrete Barrier Temporary Precast as shown on the plans and directed by the engineer unless the drop-off is located more than 34 feet from the nearest edge of a live traffic lane.

All construction methods including ordering pipe, excavating the bore and receiving pits, setting the horizontal boring machine, boring and jacking of pipe, and removal of the boring machine shall be done according to the boring machine and reinforced concrete pipe manufacturers' recommendations.

Complete all excavating necessary to construct shafts according to the grades shown on the plans. Casing pipe may be installed by boring hole with earth auger and simultaneously jacking pipe-in-place. Casing pipe sections shall have field welded joints. Bore and jack Culvert Pipe Reinforced Concrete Class V (Size) and Storm Sewer Pipe Reinforced Concrete Class V (Size) in place beneath the roadway at the location, elevation, and grade shown on the plans. Bore and jack pipe in place without disturbing the roadway above the pipe. Do not carry the excavation ahead of the pipe so far as to cause caving. If material above or adjoining boring hole is caving or being removed, stop work and modify installation method. Two rails or sills shall be set or secured on a rigid base on the bottom of the jack pit to keep the pipe at the established grade. Design bracing, backstops, and use jacks of sufficient rating for continuous jacking without stoppage, except for adding pipe sections and as conditions permit, to minimize tendency of ground material to "freeze" around casing pipe. If jacking the pipe directly, fit the leading edge with a cutter or shoe to

protect the pipe. Protect the pipe ends and joints from crushing due to jacking pressures. The first and last two pipe sections shall have joint ties installed prior to jacking. Joint ties shall conform to the standard specifications. After the pipe is in final position, joints shall be pointed with cement mortar meeting the requirements of standard spec 519.2.3 and standard spec 607. Pointing is not required when rubber type gasket joints are used.

Insert single carrier pipe into casing pipe using either wood blocking or factory fabricated spacers. Provide blocks or spacers at each pipe joint and at the center of each pipe. Spacing shall not exceed 6 feet. Design wood blocking to prevent uplifting of carrier pipe by hydrostatic forces and attach pipe using stainless steel bands minimum 1-inch wide. The blocks or spacers shall allow for grade adjustments, prevent floating or buckling of the carrier pipe and provide a low friction coefficient so that the carrier pipe can be slid into place without splitting bells.

The contractor assumes all risk as to nature and peculiarities of materials to be excavated, and is, at contractor's own expense, responsible for all pumping, sheathing, bracing, and other work necessary and required to construct, protect, and complete the work.

In soft unstable soil, use an auger of slightly smaller diameter than the inside diameter of the pipe so as not to create a void between the pipe and the soil.

Take care to ensure that the developed thrust pressures do not disturb existing utilities in or around the bore pit area.

Dispose of all excess soil material.

Backfilling of the pits shall take place within two days after pipe jacking has been completed and shall meet the requirements of standard spec 608.3.5.

No boring will be permitted without the concurrent jacking of the concrete pipe through the soil.

Fill voids between the excavation and the pipe using filler materials and placing methods as approved by the engineer.

Restore areas disturbed by boring and jacking process to original condition after jacking is completed by grading, shaping, seeding, and mulching.

D Measurement

The department will measure Pipe Boring & Jacking (Size) by the linear foot, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.017	Pipe Boring & Jacking 36-Inch	LF
SPV.0090.018	Pipe Boring & Jacking 48-Inch	LF

Payment is full compensation for boring and jacking the steel casing pipe, jacking equipment, casing, excavation, sheeting, shoring, bracing, drainage, dewatering, concrete, grouting, safety devices, backfilling, disposing of excess materials; and for obtaining any easements for installing long sections of pipe.

The items of Culvert Pipe Reinforced Concrete Class V (Size), Storm Sewer Pipe Reinforced Concrete Class V (Size) and Concrete Barrier Temporary Precast will be measured and paid for separately.

98. Furnishing Snow Fence, Item SPV.0090.020, Installing Snow Fence, Item SPV.0090.021.

A Description

This special provision describes furnishing snow fence and installing snow fence on to woven wire right-of-way fence to block snow from crossing a highway.

B Materials

B.1 Snow Fence

Furnish a snow fence consisting of wood slats woven together with five 2-wire strands of galvanized wire, as described below.

Wood slats - No. 1 aspen, spruce, or poplar; or southern yellow pine, 3/8inch thick x 1-1/2 inches wide x 4 feet high. The permissible variation in width shall not exceed 1/16 inch and 1/4 inch in length. Thickness shall be a minimum of 3/8 inches but shall not exceed 9/16 inches. Both ends shall be cut square.

The galvanized wire shall not be thinner than 13-gauge steel wire, with no less than two 360 degree twists of the wire in the weave between the slats.

The slats shall be spaced 3-3/4 inches on center (2-1/4 inches opening) plus or minus ¼-inch.

B.2 Galvanized Wire

Furnish galvanized 11-gauge steel wire to attach snow fence to woven wire right-of-way fence.

C Construction

Securely fasten the snow fence to the newly installed woven wire right-of-way fence with the galvanized wire by wrapping the wire around the wooden post and snow fence at three locations near the bottom, middle, and top of the posts at the locations shown on the plans.

The snow fence shall be installed prior to November 15, 2019.

Deliver any remaining Furnishing Snow Fence quantity that was determined not to be needed by the engineer in locations shown on the plans to a Rock County Department of Public Works storage building at a location determined by Rock County.

D Measurement
The department will measure Furnishing Snow Fence by the linear foot, acceptably completed. The department will measure Installing Snow Fence by the linear foot, acceptably completed.

E Payment
The department will pay for measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.020	Furnishing Snow Fence	LF
SPV.0090.021	Installing Snow Fence	LF

Payment is full compensation for furnishing and delivering snow fence and for installing snow fence. Delivery of Furnishing Snow Fence to a Rock County Department of Public Works storage building for quantity not installed is included in the cost of Furnishing Snow Fence.

99. Concrete Barrier Temporary Precast Left In Place, Item SPV.0090.022.

A Description
This special provision describes leaving in place temporary precast reinforced concrete barrier conforming to the shape, dimensions, and details the plans show and in accordance to the pertinent provisions of standard spec 603, these special provisions, and as hereinafter provided.

Concrete Barrier Temporary Precast Left In Place becomes the property of the department after final acceptance by the engineer.

Concrete Barrier Temporary Precast Left In Place shall have been manufactured within six months of its proposed placement at its left-in-place location on the project. Ownership identification shall include the department (DOT).

B (Vacant)

C (Vacant)

D Measurement
The department will measure Concrete Barrier Temporary Precast Left In Place by the linear foot, acceptably completed, measured along the base of the barrier after final installation in its left-in-place location.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.022	Concrete Barrier Temporary Precast Left In Place	LF

Payment is full compensation for leaving Concrete Barrier Temporary Precast on the project site.

Furnishing concrete barrier temporary, initial delivery, installation, reinstallation, trucking between worksites, transitions between temporary and permanent barriers, and anchoring will be paid for separately under the bid items provided for in the contract.
(3/11/2016)

100. Drain Slotted Longitudinal Temporary, Item SPV.0090.030.

A Description

This special provision describes furnishing and installing Drain Slotted Longitudinal Temporary as shown on the plans, according to standard spec 204, 501, 505, 608, and 611, and as hereinafter provided.

B Materials

Construct the pipe that the vane drain casting rests in using 15-inch diameter SDR-35 poly vinyl chloride, (PVC) sewer pipe for temporary drains subjected to live traffic.

Conform to standard spec 608 and 611 for all other materials.

C Construction

Prior to encasing the pipe in concrete, cover the upper end of the slotted drain as shown on the plans. Otherwise, obtain engineer approval prior to any variations.

Prior to construction operations adjacent to the slotted area of the slotted vane drain pipe, cover the slots on the top of the drain.

Remove Drain Slotted Longitudinal Temporary prior to constructing the roadway to its final condition. Repair opening in drainage structure at connection to Drain Slotted Longitudinal Temporary. Ensure engineer approval of submitted method of repair.

D Measurement

The department will measure Drain Slotted Longitudinal Temporary by the linear foot, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.030	Drain Slotted Longitudinal Temporary	LF

Payment is full compensation for furnishing all materials, including PVC pipe and end cap, slotted vane drain castings, concrete masonry and reinforcement; adjusting bricks; drilling inlet or manhole cover to accommodate connection bolts to vane drain; hauling and placing the pipe; making connections to existing inlets; sawing; encasement material around the pipe; concrete curing compound; tie bars and dowel bars cleaning out and restoring site of work; removing and disposing of all materials for Drain Slotted Longitudinal Temporary, and for repairing opening of drainage structure.

101. Traffic Control Gawk Screen Furnished, Item SPV.0090.203; and Traffic Control Gawk Screen Installed, Item SPV.0090.204.

A Description

This special provision describes furnishing and installing traffic control gawk screen on concrete barrier as a traffic control device and removal upon completion of the project.

B Materials

Furnish rectangular shaped screen for temporary mounting on top of concrete barrier.

Furnish a polymer, polyethylene, or UV protected thermoplastic, or similar lightweight product that will not shatter when impacted and is proven crashworthy.

Submit shop drawings a minimum of two weeks prior to the proposed use of Traffic Control Gawk Screen.

Requirements:

- 24 inches in height
- The same length as the concrete barrier on which it will be mounted, without splicing, except account for longitudinal overhang between the concrete barrier as shown in the plans
- Mounted with two poles, at the spacing shown in the plan, attached to the mounting plate with the mounting plate drilled into the top of the concrete barrier
- Secured with a chain and pin, or other approved method, to the mounting pole.
- Capable of being securely connected to the adjacent screen section using polyethylene brackets, or similar approved fasteners, made of non-metallic materials.
- Capable of expanding without buckling
- Capable of contracting without creating gaps in the screening and while remaining securely fastened to the adjacent screen.
- Gray in color and opaque
- Has finished faces on both sides of the screen
- Capable of remaining in place from traffic gusts, wind gusts, and other outdoor elements that may move or displace the screen

Furnish and install mounting pipe and hardware according to manufacturer/supplier directions.

Installations and removals of the gawk screen to/from its supports on the jobsite shall not require any tools.

C Construction

Furnish and deliver traffic control gawk screen to worksites within the project. Install the screen according to manufacturer's recommendations at contract-identified locations or as the engineer directs. Fasten screen sections together.

Provide surveillance and maintenance as specified in standard spec 643.3.2. Repair or replace any portion of the screen that is damaged as directed by the engineer at no additional cost. Replace any screen sections that buckle, deform, shrink, or have any other material or installation failure, as determined by the engineer, at no additional cost.

Remove screen when no longer needed at the installation site, during winter when directed by the engineer, and upon project completion. In permanent concrete barrier, concrete parapet, and department owned temporary concrete barrier, remove mounting hardware to below the concrete surface. Encapsulate all exposed metal and fill all holes left by anchorage methods with an epoxy from the department's approved products list. Fill holes as the screen is removed.

D Measurement

The department will measure Traffic Control Gawk Screen Furnished by the linear foot, acceptably delivered to the project site.

The department will measure Traffic Control Gawk Screen Installed by the linear foot, acceptably completed, measured along the base of the screen after installation for each contract-identified or engineer-directed initial installation. The department will also measure subsequent contract-identified or engineer-directed reinstallations. The department will not measure installations made solely to accommodate the contactor's means and methods.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.203	Traffic Control Gawk Screen Furnished	LF
SPV.0090.204	Traffic Control Gawk Screen Installed	LF

Payment for Traffic Control Gawk Screen Furnished is full compensation for furnishing traffic control screen, mounting posts, and mounting and fastening hardware; initial delivery; and storage until installation.

Payment for Traffic Control Gawk Screen Installed is full compensation for each installation; moving/trucking to another worksite within the project, unloading, and reinstalling; screen surveillance, maintenance, repair, and replacement; removing; disposal; and concrete barrier repair due to screen installation and after screen removal.

102. Survey Project 1003-10-76 with Optional AMG for Concrete Pavement and Base Course, Item SPV.0105.001; 1003-10-81 with Optional AMG for Concrete Pavement and Base Course, Item SPV.0105.002.

A Description

Standard spec 105.6 and 650 are modified to define the requirements for construction staking for this contract.

Add the following to standard spec 105.6.1:

Horizontal and vertical control points, provided by the department, are generally at 1-mile intervals for horizontal control and at ½-mile intervals for vertical control. Control points will be provided in a hard copy and ASCII electronic format.

Replace standard spec 105.6.2 with the following:

The department will not perform any construction staking for this contract. The contractor shall perform all survey required to layout and construct the work under this contract, subject to engineer's approval.

The survey includes establishing horizontal and vertical position for all aspects of construction including but not limited to storm sewer, subgrade, base, curb, gutter, curb and gutter, pipe culverts, structure layout, pavement, barriers (temporary and permanent), electrical installations, supplemental control, slope stakes, ponds, ITS, FTMS, ramp gates, parking lots, utilities, landscaping elements, irrigation system layout, installation of community sensitive design elements, traffic control items, fencing, etc.

The department may choose to perform quality assurance survey during construction. This quality assurance survey does not relieve the contractor of the responsibility for furnishing all survey work required under this contract.

Delete standard spec 650.1.

B (Vacant)

C Construction

Survey required under this item shall be according to all pertinent requirements of standard spec 650 and shall include all other miscellaneous survey required to layout and construct all work under this contract.

Replace standard spec 650.3.8 with the following:

650.3.8 Concrete Pavement

650.3.8.1 General

(1) Under the Construction Staking Concrete Pavement bid item the contractor may substitute automated machine guidance (AMG) for conventional staking on all or part of the concrete pavement and underlying base.

650.3.8.2 Conventional Concrete Pavement Staking

(1) Set construction stakes or marks at 25-foot intervals. Set and maintain additional stakes as necessary to establish location and grade along intersecting road radii; and for auxiliary lanes, vertical curves, horizontal curves, and curve transitions according to the plans. Locate stakes to within 0.02 feet horizontally and establish elevations to within 0.01 feet vertically. Set and maintain sufficient additional stakes at each cross-section to achieve the required accuracy and to support the method of operations.

650.3.8.3 Automated Machine Guidance for Concrete Pavement

650.3.8.3.1 General

(1) No base or paving stringlines are required for AMG work.

(2) Coordinate with the engineer throughout the course of construction to ensure that work performed using AMG conforms to the contract tolerances and that the methods employed conform to the contractor's AMG work plan and accepted industry standards. Address AMG issues at weekly progress meetings.

(3) Furnish a robotic total station rover rod with prism and controller for engineer use during base course placement and paving operations. Furnish copies of user manuals and technical support to project staff for the equipment provided. Equipment furnished for engineer use remains the property of the contractor with the department responsible for repair or replacement of damaged equipment. Provide equipment from one week prior to the start of AMG base course trimming operations until completion of AMG paving operations. If there are multiple phases of AMG paving operations, the equipment does not need to remain on site between phases.

(4) Provide the department field staff up to 8 hours of formal training on contractor's AMG systems.

650.3.8.3.2 AMG Work Plan

(1) Submit a comprehensive written AMG work plan for department review at least five business days before the preconstruction conference. The engineer will review the plan to determine if it conforms to the requirements of this special provision.

(2) Trim the base course and place concrete pavement as the contractor's AMG work plan provides. Update the plan as necessary during construction.

(3) The AMG work plan should discuss how AMG technology will be integrated into other technologies employed on the project. Include, but do not limit the contents to, the following:

1. Designate which portions of the contract will be done using AMG and which portions will be done using conventional staking.

2. Describe the manufacturer, model, and software version of the AMG equipment including the angular accuracy and the measurement frequency of the guidance system.

3. Provide information on the qualifications of contractor staff. Include formal training and field experience. Designate a single staff person as the primary contact for AMG technology issues.

4. Describe how project control is to be established. Include a list and map showing control points enveloping the site. Incorporate department-provided primary control and contractor-provided secondary control into a single site control network. At a minimum provide secondary control every 250 feet on alternating sides of the traveled way outside of the grading limits. Use engineer-approved survey markers. Ensure that secondary control points are accurate to within 0.02 feet horizontally and to within 0.01 feet vertically.

5. Describe site calibration procedures. Include a map of the control points used for site calibration and control points used to check the site calibration. Describe the site calibration and checking frequency as well as how the site calibration and checking information will be documented.

6. Describe the contractor's quality control procedures. Describe procedures for checking, mechanical calibration, and maintenance of equipment. Include the frequency and type of checks performed to ensure that the trimmed base and concrete pavement conform to the contract plans.

650.3.8.3.3 Equipment

(1) Use robotic total station machine guidance or other engineer approved combination of methodologies to meet the contract requirements.

(2) Perform periodic sensor calibrations and other routine adjustments as required to ensure that the trimmed base and concrete pavement conform to the contract plans.

650.3.8.3.4 Geometric and Surface Information

650.3.8.3.4.1 Department Responsibilities

(1) The department will provide design model information as outlined in the Design Model Data article of these special provisions.

650.3.8.3.4.2 Contractor Responsibilities

(1) Review department-provided design model data for areas of the project employing AMG. Report inconsistencies between that data and the contract plans to the engineer and work with the engineer to resolve those inconsistencies. Develop a contractor construction model.

(2) Obtain elevations of adjacent pavement and bridges at centerline, edge of pavement, and other locations necessary to characterize existing profile and cross slope. Adjust design profile grade and cross slope to provide a smooth transition from the new pavement to the existing pavement or bridge. Notify the engineer when a smooth profile cannot be provided. Submit final adjusted plan elevations to the engineer.

(3) Provide the resulting construction model data proposed for the paving operation to the department in LandXML v1.2 or AutoCAD DWG.

650.3.8.3.4.3 Managing and Updating Information

(1) Notify the department of any errors or discrepancies in department-provided information. The department will determine what revisions may be required. The department will revise the contract plans, if necessary, to address errors or discrepancies that the contractor identifies. The department will provide the best available information related to those contract plan revisions.

(2) Revise the construction model as required to support construction operations and to reflect any contract plan revisions the department makes. Perform checks to confirm that the revised construction model agrees with the contract plan revisions. Provide a copy of the resulting adjusted construction model data to the engineer in LandXML v1.2 or AutoCAD DWG. The department will pay for costs incurred to incorporate contract plan revisions as extra work.

650.3.8.3.5 Site Calibration

(1) Designate a set of control points for site calibration for the portion of the project employing AMG machine guidance. Incorporate the department-provided control framework used for the original survey and design.

(2) Calibrate the site by determining the parameters governing the transformation of AMG information into the project coordinate system. Use the full set of control points designated under standard spec 650.3.8.3.5 (1) for the initial site calibration. Provide the resulting site calibration file to the engineer before beginning base construction operations.

650.3.8.3.6 Construction Checks

650.3.8.3.6.1 Daily Calibration Checks

(1) In addition to the site calibration, perform site calibration checks. At a minimum, check the calibration at the start of each day as described in the contractor's AMG work plan. Report out-of-tolerance checks to the engineer. The measured position must match the established position at each individual control point within the following tolerances:

- Horizontally to 0.02 feet or less.
- Vertically to 0.01 feet or less.

(2) Discuss the previous week's daily calibration check results at the weekly progress meeting for monitoring the AMG work.

650.3.8.3.6.2 Final Base Checks

(1) Check the trimmed base against the plan elevation at randomly selected points on cross sections located at stations evenly divisible by 100. Conduct at least one random check per 250 lane-feet corresponding to the basic units used to assess pavement thickness under standard spec 415.3.16. Also check the trimmed base at additional points as the engineer directs. Notify the engineer at least 2 business days before making final checks so the engineer can observe the process.

(2) Ensure that no individual check is off by more than 0.02 foot vertically of the adjusted plan elevation. Notify the engineer if this criterion is exceeded.

(3) The department may conduct periodic independent base checks. The department will notify the contractor if any individual check differs by more than 0.05 foot horizontally or 0.02 foot vertically from the design.

650.3.8.3.6.3 Final Pavement Checks

(1) Check the pavement at drainage structures, bridges, driveways, intersections, ramp termini, and additional points as the engineer directs. Notify the engineer at least two business days before making final checks so the engineer can observe the process.

(2) Notify the engineer and suspend paving operations immediately if the final pavement surface does match existing structures or pavement within 0.02 foot vertically.

(3) The department may conduct periodic independent pavement elevation checks. The department will notify the contractor if any individual check differs by more than 0.05 foot horizontally or 0.02 foot vertically from the adjusted plan.

D Measurement

The department will measure Survey Project (project ID) with Optimal AMG for Concrete Pavement and Base Course as a single lump sum unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.001	Survey Project 1003-10-76 with Optional AMG for Concrete Pavement and Base Course	LS
SPV.0105.002	Survey Project 1003-10-81 with Optional AMG for Concrete Pavement and Base Course	LS

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.
(3/29/2017)

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.

103. Concrete Pavement Joint Layout, Item SPV.0105.003.

A Description
This special provision describes designing the joint layout and staking the location of all joints on projects 1003-10-76 and 1003-10-81, including mainline, ramps and intersections (traditional and roundabouts) to accommodate the concrete paving operation.

B (Vacant)

C Construction
Design the joint layout and stake the location of all joints on projects 1003-10-76 and 1003-10-81, including mainline, ramps and intersections (traditional and roundabouts), to accommodate the concrete paving operation. Plan and set all points necessary to establish the horizontal position of the transverse and longitudinal joints in the concrete pavement according to the plans, the American Concrete Pavement Association Intersection Joint Layout Guidelines, and as directed by the engineer. Establish the joint layout in a manner to best-fit field conditions, construction staging, the plan, and as directed by the engineer.

D Measurement
The department will measure Concrete Pavement Joint Layout, completed according to the contract and accepted, as a single complete unit of work.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.003	Concrete Pavement Joint Layout	LS

Payment is full compensation for designing the joint layout on the mainline, ramps and all traditional and roundabout intersections; for completing all surveying work necessary to locate all transverse and longitudinal joints; and for making adjustments to match field conditions and construction staging.

104. Traffic Control for Turtle Creek Recreational Vehicles, Item SPV.0105.010.

A Description
While maintaining Turtle Creek access through the work zone for recreational vehicles (boats, canoe, etc.), furnish, place, move, and maintain nineteen 7-inch diameter buoys and

signs to provide traffic control for Turtle Creek recreational vehicles. Buoys and signs are to be used to delineate traffic for recreational vehicles through the construction site as shown on the plans and directed by the engineer.

B Materials
For signs, conform to standard spec 637.2 and 643.2.

On the 7-inch diameter buoys, provide red flashing lights operating at 30 flashes per minute.

Provide materials suitable to securely fasten signs and buoys.

C Construction
Submit Waterway Marker Permit to Wisconsin Department of Natural Resources in advance of starting work. Provide an approved permit to the construction engineer. Adhere to conditions in the Waterway Marker Permit, approved by the Wisconsin Department of Natural Resources.

As provided in the plan, securely place buoys and signs prior to constructing or placing a hazardous feature in Turtle Creek. Do not remove signs until the removal from Turtle Creek of hazardous features that are temporary.

Boat excluded buoy and hazard warning buoy, type and requirements shall conform to the Bureau of Law Enforcement, Department of Natural Resources Publication PUB-LE-317-92, as shown on the plans and as hereinafter provided. This work also includes providing a temporary support system for the end of the safety cable attached to a stable feature, such as the pier of an existing or proposed structure.

Maintain Turtle Creek access through the work zone for recreational vehicles at all times.

At the end of construction, remove "Bridge Work Ahead" (W20-1MOD) signs and buoys.

D Measurement
The department will measure Traffic Control for Turtle Creek Recreational Vehicles as a single complete lump sum unit of work, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.010	Traffic Control for Turtle Creek Recreational Vehicles	LS

Payment is full compensation for furnishing, placing, fastening, moving, and maintaining traffic signs, danger buoys, safety cable and attachments and similar control devices; for removal of "Bridge Work Ahead" signs; for removal of buoys; and for maintaining recreation vehicle access through the work zone.

105. Remove Lighting Control Cabinet, Item SPV.0105.350.

A Description
This special provision describes removing the existing lighting control cabinet at the I-39/90 westbound Beloit (SWEF) according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction
Notify Derrin Wolford of WisDOT SW Region at (608) 246-5360 at least three working days prior to the removal of the lighting control cabinet. Complete the removal work as soon as possible following shut down of this equipment. The lighting system shall be operational and lit during nighttime hours for the duration of the project.

Remove lighting control cabinet and associated lighting cabinet equipment from the footing and dispose of properly.

D Measurement
The department will measure Remove Lighting Control Cabinet as a single lump sum unit of work for each intersection, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.350	Remove Lighting Control Cabinet	LS

Payment is full compensation for removing, disassembling, disposing of scrap material, and incidentals necessary to complete the contract work and make lighting system operational.

106. Temporary Lighting System CTH S Interchange, Item SPV.0105.351.

A Description
This special provision describes furnishing, installing, maintaining, and removing a temporary lighting system at the IH 39/90 and CTH S interchange. The temporary lighting system includes wood poles, luminaire with photocell, luminaire arm, overhead service conductor assembly, guy wires, aerial cable, and temporary utility electrical service required for an operational, temporary lighting system during construction and as follows. All work shall be according to standard spec 651.

B Materials
Furnish Wood Poles Class 4 and guy wires conforming to standard spec 661. Furnish and install guy wires and support cables at all wood poles that have aerial power cables.

Furnish all lighting equipment as shown on the plan and plan details from the department's approved products list and conforming to standard spec 657.2 and 659.2. Furnish a button-type photocell for luminaire and install as shown on plan detail. The photocell shall be rate for 240V, 1500W with 30-60 second delay between "on-off" operations.

Provide overhead service conductor assembly, including a messenger cable, insulated conductor wires, ground wires, a jacket, and conductor lashing as shown in the plan details. Provide a messenger wire consisting of:

1. Seven strands of extra high strength (EHS) grade, galvanized (zinc coating weight per ASTM A 90) steel wire.
2. 3/8 inch nominal diameter
3. Minimum strand break load 26,900 lbf.
4. Critical tension 25,000 lb.
5. Meets or exceeds ASTM A 475 and ASTM A 363 standards.

Provide annealed (soft) copper, type SE, 600 volt, conductor wires and ground wires, of the size noted in the plans. Provide sunlight resistant Type XHHW-2 insulation for the conductor wires. Provide wires in a jacket of sunlight resistant gray polyvinyl chloride.

Provide stainless steel tie straps for lashing the conductor assembly.

Provide the temporary electrical service for temporary lighting according to the requirements of the applicable electrical utility. Provide an affidavit to the electrical utility in a timely manner so the electrical utility can schedule service turn on. Contractor shall pay for the utility service installation and energy costs.

C Construction

Install wood poles, guy, span, and messenger wire, and mountain hardware conforming to standard spec 661.3. Install all hardware as represented on the plans and all grounding components per National Electric Code.

Install lighting equipment as shown on plans and in the plan details conforming to standard spec 657.3 and 659.3. Apply silicone caulk when installing photocell to maintain watertight integrity of the enclosure.

Assemble and install the conductor assembly as shown in the plans and in the plan details. Maintain overhead clearances, including wire sag, as shown on the plans. Install wires in conduit on poles and make connections.

Arrange for all required electrical service modifications with the utility. Pay for the utility service installation, energy costs, and any service modifications required.

Request a lighting inspection of the complete temporary lighting system installation. Make request to the engineer at least 5 working days before requested inspection.

Maintain the temporary lighting system at for the temporary on-ramp until the permanent IH 39/90 northbound on-ramp at the CTH S interchange is open to traffic. Maintenance includes, but is not limited to, replacement of burned out luminaire, replacement of knocked down poles, and maintaining continuous operation of lighting system.

Maintain minimum span heights as the plan shows. Verify the span height throughout the project duration.

Provide contact information for the city and police department for repair purposes and be able to respond within 2 hours to the project site for a knockdown. All other maintenance needs shall be completed within 24 hours of notification.

Remove the temporary lighting system when the IH 39/90 northbound temporary on-ramp at the CTH S interchange is no longer in use. Restore the site to its previous condition, including backfilling post holes and compacting every 12 inches with engineer-approved material.

D Measurement

The department will measure Temporary Lighting System CTH S Interchange as a single lump sum unit of work, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.351	Temporary Lighting System CTH S Interchange	LS

Payment is full compensation for furnishing, installing, operating, maintaining, and removing the temporary lighting system and for backfilling and restoring the site to match surroundings. Grounding components, guy wires, support cables, and rigid metallic conduit are incidental to this item. Payment also includes all utility charges for installation, disconnection, and energy service through project completion.

107. Salvage and Reinstall ITS Field Cabinet, Item SPV.0105.401.

A Description

This special provision describes removing, salvaging and reinstalling the existing ITS cabinet and ITS equipment, which includes DMS controllers, plaques sequence identification, Ethernet switch, and electrical service disconnect box

B (Vacant)

C Construction

Prior to removing, the engineer or delegated representative will determine if the ITS cabinet and ITS equipment are fully functional and inspect the equipment for damage. If the equipment is found to be non-functional or damaged, contact Kyle Hemp of the department's SW Region at (608) 246-5367.

Carefully remove the existing the ITS equipment inside and attached to the cabinet at the location indicated in the plans. Salvage all mounting hardware associated with the ITS equipment. Salvage all cables/wires connected from each device to the next connected device. Pull back the existing DMS cables to the pull box and store as indicated in the plans. Salvage all electrical cables.

Carefully remove ITS field cabinet from the ITS concrete base at the location indicated in the plans. Salvage the ITS field cabinet, and other equipment attached to the cabinet.

Reinstall the ITS field cabinet and ITS equipment and make operational within seven days of removal. Pull the existing DMS cable from the pull box where it's stored to the new ITS field cabinet location and make all connections to make the microwave detector assembly operational. Connect the salvaged electrical wires to the new electrical service meter breaker pedestal location.

Any materials to be reinstalled which are lost or damaged during removal, transport, or storage shall be repaired or replaced by the contractor at the expense of the contractor, or will be repaired or replaced by the department at the expense of the contractor, as determined by the engineer.

Storage and protection of the salvaged materials prior to reinstallation or delivery to the SW Region is the responsibility of the contractor and is incidental to this item.

D Measurement
The department will measure Salvage and Reinstall ITS Field Cabinet as a single lump sum unit of work, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.401	Salvage and Reinstall ITS Field Cabinet	LS

Payment is full compensation for removing, salvaging, transporting, storing, and reinstalling salvaged ITS field cabinet and ITS equipment; disconnecting and salvaging any necessary wiring; and for incidentals necessary to complete the work.

108. Salvage and Reinstall Hardwired Bluetooth Sensor, Item SPV.0105.402.

A Description
This special provision describes removing, salvaging, and reinstalling an existing hardwired Bluetooth sensor including a cellular modem.

B Materials
Provide all necessary cables and connectors between the hardwired Bluetooth sensor and other devices.

C Construction
Install the hardwired Bluetooth sensor as indicated on the plans. Make connections between the hardwired Bluetooth sensor and other devices as shown on the plans, or as directed by the engineer. Mount the antenna in a way that maximizes signal strength.

D Measurement
The department will measure Salvage and Reinstall Hardwired Bluetooth Sensor as a single lump sum unit, installed according to the contract, tested and accepted.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.402	Salvage and Reinstall Hardwired Bluetooth Sensor	LS

Payment is full compensation for salvaging and reinstalling the hardwired Bluetooth sensor and cellular modem, furnishing and installing all necessary hardware, making all necessary connections, and making the Bluetooth sensor fully operational.

109. Temporary Open/Closed Sign System, Item SPV.0105.403.

A Description
This special provision describes installing, operating, maintaining, and removing the temporary open/closed sign system for the Beloit Safety and Weight Enforcement Facility (SWEF), as shown on the plans. The temporary open/closed sign system includes moving existing Open/Closed changeable message signs (CMS), furnishing a contact closure radio system for communications to the SWEF building, furnishing necessary equipment to provide electrical service for an operational open/closed sign system during construction and as follows. All work shall be according to standard spec 651.

B Materials
B.1 Moving Signs and Sign Supports
Salvage and reuse signs and sign supports as shown on the plans and conforming to standard spec 638. Provide all additional hardware and materials needed to re-erect signs at the new location.

B.2 Wireless Contact Closure On/Off System
Furnish a wireless contact closure on/off control system capable of turning the CMS signs from "CLOSED" to "OPEN/↗". Provide spread spectrum radio assemblies, antennas, radio antenna cables, a switch to be installed in the SWEF front observation room, and all other hardware and materials to install the wireless on/off control system.

Present and demonstrate wireless contact closure on/off system to State Patrol and the engineer. Contact Sergeant Jeremiah Johnson of Wisconsin State Patrol at (844) 847-1234 to make arrangements. Receive approval for system suitability prior to installation. In the event of a system malfunction or loss of communications, the CMS signs shall default to the "CLOSED" OR "BLANK" sign indication.

B.3 Electrical Service

Furnish Wood Poles Class 4 and guy wires conforming to standard spec 661. Install conduit conforming to standard spec 652 and all other necessary equipment according to the plans. Furnish and install guy wires and support cables at all wood poles that have aerial power cables.

Provide overhead service conductor assembly, including a messenger cable, insulated conductor wires, ground wires, a jacket, and conductor lashing as shown in the plan details. Provide a messenger wire consisting of:

1. Seven strands of extra high strength (EHS) grade, galvanized (zinc coating weight per ASTM A 90) steel wire.
2. 3/8 inch nominal diameter.
3. Minimum strand break load 26,900 lbf.
4. Critical tension 25,000 lb.
5. Meets or exceeds ASTM A 475 and ASTM A 363 standards.

Provide annealed (soft) copper, type SE, 600 volt, conductor wires and ground wires, of the size noted in the plans. Provide sunlight resistant Type XHHW-2 insulation for the conductor wires. Provide wires in a jacket of sunlight resistant gray polyvinyl chloride.

Provide stainless steel tie straps for lashing the conductor assembly.

Arrange for connection to an electrical service for temporary open/closed sign system according to the requirements of the applicable electrical utility. Provide an affidavit to the electrical utility in a timely manner so the electrical utility can schedule service turn on.

C Construction

C.1 Moving Signs and Sign Supports

Move signs and sign supports conforming to standard spec 638, as shown on the plans.

C.2 Wireless Contact Closure On/Off System

Install equipment according to manufacturer's instructions to make fully operational. Aim the antennas at the matching antenna and use the signal strength indicator on the radio to find the optimum position.

Use the manufacturer's set-up software to configure the radio for its intended use. Following installation of the spread spectrum radio assemblies, antennas, switch and cables, perform a data test from the Master connection of the radio system with a fully configured antenna system.

Contact Sergeant Jeremiah Johnson of Wisconsin State Patrol at (844) 847-1234, at least three days prior to installation and setup of equipment in SWEF front observation room.

C.3 Electrical Service

Install wood poles, guy wire, and messenger wire, and maintain hardware conforming to standard spec 661.3. Install all hardware as represented on the plans and all grounding components per National Electric Code.

Maintain minimum span heights as the plan shows. Verify the span height throughout the project duration.

Assemble and install the conductor assembly as shown in the plans and in the plan details. Maintain overhead clearances, including wire sag, as shown on the plans. Install wires in conduit on poles and make connections.

Arrange for all required electrical service modifications with the utility. Pay for the utility service installation, disconnection, and any service modifications required.

Request an inspection of the complete temporary open/closed sign system installation. Make request to the engineer at least 5 working days before requested inspection.

C.4 Maintenance

Maintain the temporary open/closed sign system during construction until the permanent open/closed sign system has been installed and is operational.

Provide contact information for the State Patrol for repair purpose. All maintenance needs shall be completed within 24 hours of notification.

C.5 Removal

Remove and dispose of the temporary open/closed sign system when the new permanent open/closed sign system equipment has been installed and operational. Return CMS open/closed signs to WisDOT. Restore the site to its previous condition.

D Measurement

The department will measure Temporary Open/Closed Sign System as a single lump sum unit of work, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.403	Temporary Open/Closed Sign System	LS

Payment is full compensation for furnishing, installing, operating, maintaining, and removing the temporary open/closed sign system and for backfilling and restoring the site to match surroundings. Wireless contact closure on/off system, wood poles, grounding components, guy wires, support cables, and rigid metallic conduit are incidental to this item.

110. Weigh-In-Motion System, Item SPV.0105.480.

A Description

This special provision describes the work to remove the existing Weigh-In-Motion (WIM) System and install a new system to be utilized at the Beloit Safety and Weight Enforcement Facility (SWEF) to pre-weigh vehicles, sort, and provide direction to commercial vehicles in motion along northbound IH 39/90 in advance of the Beloit SWEF. Changeable Message Signs (CMS) shall be utilized along the mainline to direct vehicles to report or bypass the Weigh Station based on their perceived level of compliance as determined from the mainline pre-screening WIM system. The system shall also work with the OPEN/CLOSED Signs, the existing Weigh Station directional signals, the upgraded static scale, and bypass/static lane Variable Message Signs (VMS).

A vehicle that has been directed to enter the Weigh Station shall be screened and verified once more on the ramp. Based on the results of this verification, automatic directional signals shall direct the vehicle to either bypass or report to the static scale for further inspection.

The sorting decisions shall be based on compliance of speed, side to side balance, axle-to-axle balance within tandem, axle spacing, axle weights, axle group weights, bridge formula (front and rear), and gross vehicle weights with the pre-set tolerances and credentials.

B Materials

B.1 Introduction
B.2 Removals
B.3 Submittals
B.4 WIM System Operational Overview
- B.4.1 Mainline WIM System
- B.4.2 Enforcement Camera Systems
- B.4.3 Mainline Sort System
- B.4.4 Mainline Compliance System
- B.4.5 Ramp Lane Control System
- B.4.6 Mainline WIM Settings
- B.4.7 Data Collection System
  - B.4.7.1 Capabilities
  - B.4.7.2 Information Available
  - B.4.7.3 Communications

B.5 WIM System Functional Requirements
B.5.1 Mainline
B.5.1.1 WIM Quartz Sensors
B.5.1.2 Detector Loops
B.5.1.3 Compliance System
B.5.1.4 WIM Electronics
B.5.1.5 Overview Camera System
B.5.1.6 LPR System
B.5.1.7 Automatic USDOT Reading System
B.5.1.8 Mainline Sort System Changeable Message Sign (CMS)
B.5.2 Compliance/Ramp Area
B.5.2.1 WIM Quartz Sensors
B.5.2.2 Detector Loops In New Roadway
B.5.2.3 Detector Loops In Existing Station Roadway
B.5.2.4 Electronics
B.5.2.5 Lane Control System (LCS)
B.5.3 Scale House
B.5.3.1 Weigh Station System Operational Overview
B.5.3.2 Vehicle Display Windows
B.5.3.3 Virtual Graphics Display
B.5.3.4 Manual Override Console
B.5.4 Weigh Station Computer
B.5.5 Scale Manager
B.6 Conduit and Pull Boxes
B.7 Changeable Message Signs (CMS)
B.8 Portable Static Wheel Load Scales
B.9 System Acceptance
B.9.1 System Review
B.9.2 Acceptance Tests
B.9.2.1 Factory Acceptance Tests
B.9.2.2 Site Acceptance Tests
B.9.2.3 Continuous Operating Test (COT)
B.10 Training
B.11 Warranty
B.12 Materials
B.13 Standard Products
B.14 Lightning Protection

B.1 Introduction

WisDOT has an existing Pre-Pass E-Screening System. In addition the 360SmartView and Drivewyze screening systems shall be added to this site by others. The WIM Vendor shall coordinate with and successfully interface with both E-Screening Systems and provide consistent messages when notifying vehicles in order to provide a fully integrated system.

The WIM System shall include various components that interact together. The components shall include the following:

- WIM quartz sensors
- Axle and loop detection
- Overview image camera
- Automatic Traffic Recorder (ATR) System
- License Plate Reading (LPR) System with optical character recognition
- Automatic USDOT Reading (AUR) System with optical character recognition
- PrePass System Interface
- 360 SmartView System Interface
- Drivewyze System Interface
- Loop detection
- Mainline CMS
- OPEN/CLOSED Sign inserts
- Weigh Station lane control directional signals
- Weigh Station Variable Message Signs (VMS)
- Weigh Station Computer system
  - Station PC
  - Virtual Graphics Display
  - Scale Manager
  - Vehicle Display
  - Override Console
  - Data Collection System
- On-site Communication System
- Cellular Modem for remote communication
- Portable static wheel load scales (2 sets)

The scope of work is to complete the following work strictly per these provisions and associated plans:

B.2 Removals

The following shall be removed:

- All electronics in the existing mainline WIM cabinet. Only power to the cabinet and communication wiring to remain. Dispose removed electronics and wiring. Existing WIM cabinet to be salvaged and re-installed at new location as part of the project.
- Existing mainline and ramp WIM scales.
- Existing overview camera, illumination, and pole. Dispose removed items.
- Existing license plate reader (camera, illumination, and pole). Dispose removed items.
- Existing first Mainline System Sort Changeable Message Sign (CMS) and structure. Existing CMS to be salvaged and stored on-site at a location to be determined as a spare. Dispose of existing structure.
- Existing second Mainline System Sort CMS and structure. CMS to be salvaged and re-installed at new location as shown in the plans. Dispose of existing structure.

- All electronics in the existing ramp WIM cabinet. Only power to the cabinet and communication wiring to remain. Dispose of removed electronics and wiring.
- Existing USDOT reader (camera, illumination, and pole). Dispose removed items.
- Existing OPEN/CLOSED and ↗/CLOSED CMS signs to be removed from existing sign panels in a manner to preclude damage, salvaged, and delivered to the engineer.
- Existing over height detector and poles. Dispose removed items.
- Existing Variable Message sign control cabinet on pole and electronics. Dispose removed items.
- Existing WIM system electronics in the SWEF building utility room. Dispose removed electronics and wiring.
- Existing WIM system electronics in the SWEF building scale area. Dispose removed electronics and wiring.

Supply and install the following:

- WIM quartz sensors and loops as shown in the plans
- WIM electronics in existing mainline WIM cabinet
- Overview image camera, License Plate Reading (LPR) system, and Automated USDOT Reading system including support structure
- Tracking loops to activate signs/signals and monitor traffic flow
- CMS/Loop interface cabinet to be mounted on existing structure
- New Mainline Sort System Changeable Message Sign structure. Existing Mainline Sort System CMS to be installed on new structure.
- New LED OPEN/CLOSED Sign, ↗ /CLOSED Sign, and RIGHT LANE/ALL LANES Sign as specified in section B.7 along with the electronics to control the signs
- Electronics to control the existing Weigh Station lane control signals
- VMS cabinet and control electronics to be mounted on existing support structure
- New WIM electronics for the SWEF building utility room
- New WIM electronics for the SWEF building operations area including printer
- WIM system software
- New power and communications conduit and wiring as called for on plans
- On-site Communication System
- Cellular modem for remote access of system

B.3 Submittals

Prior to manufacturer approval and a subcontract being executed, the Contractor and the engineer shall arrange the following:

1. The contractor shall furnish electronically collected accuracy performance data from the pre-existing system to the engineer. This data shall be in a common database and include WIM records (axle and gross) and static (platforms and gross) weights that have been electronically collected (manually entered data will not be accepted). This report shall contain at least 20,000 vehicle records.
2. The contractor shall furnish 3rd party verification of the new static scale system components passing an 80,000 amperes lightning strike test.

3. The contractor shall arrange for the demonstration of a pre-existing SYSTEM to the engineer at least two weeks prior to the pre-construction conference.
4. The engineer may, at its option and expense, make provision for selected persons to view the demonstration.

At the pre-construction conference, the Contractor shall furnish:

1. The engineer with written documentation and information of the WIM and static scales.
    a. Manufacturer's name
    b. Model number, supported by descriptive material for, but not limited to, the standard package system.
    c. All accessories identified.
2. Submittals shall be supported by descriptive material such as
    a. Catalogs
    b. Cuts
    c. Diagrams
    d. Other data published by the manufacturer, to demonstrate to the engineer the contractor's intent to comply with the Technical Special Provisions and plan requirements.
3. List a minimum of five Weigh Stations and provide the owner's name, address, persons to contact and telephone numbers of similar enforcement installations in the United States.

The System manufacturer shall submit the following:

1. Equipment drawings
2. General arrangements
3. Foundation requirements including camera reader pole and CMS structure. All new foundations to be stamped by a PE licensed in Wisconsin.
4. Circuit diagrams
5. Field wiring diagrams
6. Instruction manuals
7. Bill of Materials
8. Spare parts list
9. Manufacturer’s product data
10. Certified test reports
11. Material certifications

The contractor shall submit the following equipment documentation for acceptance prior to fabrication:

1. Detailed description of how the system requirements are met, including a step-by-step description of how the system would function in processing each of the following violations as well as the compliant scenario:
    a. Overweight
    b. Manual override of the system for truck selection either programmed or random
    c. Compliant

d. Over-length
e. King Pin Violator
f. Back parking lot/inspection traffic
g. Imbalance
    1) Side to side
    2) Axle to axle within a tandem

2. Inductive loops, according to the contract documents

The contractor shall submit six complete sets of full size drawings. The contractor shall:

1. Design all overhead structures and foundation supports including camera reader pole and CMS structure. All foundations to be stamped by a PE licensed in Wisconsin.
2. Submit shop drawings along with the supporting calculations to the engineer for review and approval.
3. Obtain a professional engineer licensed in the State of Wisconsin to document, sign, and seal all structural drawings.

Two weeks prior to the Continuous Operating Test (COT), the contractor shall supply the following to the engineer for the maintenance of the System

1. Narrative description of system operation in detail.
2. Narrative technical description of the following:
    a. Major system component interaction
    b. Subsystem component interaction
3. Drawings:
    a. Major system component operation/interconnection
    b. Internal Printed Circuit Board (PCB) operation detailing what electronic function and process is being performed on that board
4. Schematics shall reveal diagrams related to troubleshooting/maintenance including:
    a. Input and output voltage levels on WIM related PCBs
    b. Voltage test points at various stages on the WIM process
    c. Data sheets on any specialized proprietary Integrated Circuits (IC's) or boards in the System
    d. Jumper and switch settings on all PCB's for normal operation
    e. As-built drawings shall show type and location of all conduits, pull boxes, junction boxes, loops, traffic signs, and directional signals
5. Technical documentation on all accessories used in the system (OPEN/CLOSED signs, directional signals, etc.)
6. Contractor shall provide names and phone numbers of contacts that user may contact for technical help

Acceptance of bid or approval of shop drawings by the engineer does not relieve the Contractor of the responsibility or the necessity of furnishing material and/or performing work as required by the plans and these provisions, nor from the requirements of the Continuous Operating Test (COT) as contained within these provisions.

The equipment approved by the engineer shall be provided and installed according to the plans and these provisions. If the equipment proposed by the contractor becomes unavailable, the engineer may approve in writing alternate equipment proposed by the contractor due to the unavailability of the originally specified equipment.

B.4 WIM Systems Operational Overview

B.4.1 Mainline WIM System

Commercial vehicles approaching the Weigh Station shall be directed into the right hand lane by means of a CMS sign along with signing provided by the project. A vehicle approaching the Weigh Station shall pass over the Mainline Weigh-In-Motion (WIM) system, which is embedded in the highway prior to the Weigh Station exit ramp. All lanes of IH 39/90 shall be equipped with WIM quartz sensors that exceed ASTM E1318 Type III accuracy at site speeds. WIM electronics shall be located in the existing roadside cabinet adjacent to the WIM quartz sensors, and shall process the information collected by the in-road equipment.

The WIM system shall collect axle weight and spacing, vehicle speed, classification and other relevant data to create a vehicle record. An overview image of the passing vehicle shall be combined with the vehicle record. A USDOT and License Plate image of the passing vehicle shall also be combined with the vehicle record. Using optical character recognition the USDOT and license plate read shall be included in the vehicle record. The license plate jurisdiction shall be a part of the license plate read. The combination of USDOT, license plate number, and license plate jurisdiction shall be checked against the 360SmartView system for non-weight violations. Based on a comparison of the vehicle record to the parameters set by the Weigh Station system, the WIM system shall make a sort decision and advise the driver to either exit or bypass the Weigh Station via the Mainline Sort System Changeable Message Sign (CMS) located on the side of the road. However, the actual sorting operation can be overridden by the operator using the virtual graphics display or override control in the Weigh Station. Non-violating vehicles may be randomly selected from the mainline for visual inspection at the scale house.

An existing Automatic Vehicle Identification (AVI) detection system shall be interfaced with ability to identify PrePass vehicles. This is provided separately by PrePass, but shall be integrated into the WIM check system. The WIM system shall be such that a vehicle may be called in to report based on its PrePass or 360SmartView and Drivewyze credential check, as well as its WIM weight check.

WIM quartz sensors in the northbound center and left lane shall be installed to detect commercial vehicles bypassing the WIM quartz sensors in the right lane and not complying with signage.

The WIM quartz sensors installed in the southbound lanes of IH 39/90 shall be used for site data collection only as a part of the ATR system. The Contractor shall furnish the following for the ATR system: Loop Detector and Piezo Conduit, Loop Detector Wire and Lead In Cable, Junction Box Fittings, PVC Conduit, Quartz Sensor PVC Conduit, Concrete Control

Cabinet base, Maintenance Platform, and Pull Boxes in accordance with the details shown in the plans.

The OPEN/CLOSED signs shall be controlled by a physical switch on the Override Console.

The system shall be able to collect continuous WIM data for statistical analysis. The data collection system shall save vehicle information in a compressed format complete with a date and time stamp. As a result, the information can be downloaded and, with the aid of commercially available software, the user shall be able to generate reports based on user inputs. The stored data must be remotely accessible by cellular modem communications.

All vehicle information, including violation information, shall be determined in real time and shall be displayed on the scale house operator console in vehicle display windows.

B.4.2 Enforcement Camera Systems

The enforcement camera system shall consist of an overview image camera, license plate reader, and automated USDOT reader (AUR) mounted alongside the roadway on mainline IH 39/90. The overview camera system shall capture an image of passing commercial vehicles to be linked with the vehicle record as an identifier. The camera shall be capable of full color photos during daytime operation, and black-and-white near-infrared images during nighttime operation. The camera system electronics, which shall be located with the other system electronics, shall store the image and shall link it with the correct vehicle record.

The LPR system shall capture an image of the commercial vehicles license plate to be linked with the vehicle record. The camera shall be capable of black-and-white near-infrared images during daytime and nighttime operation. The camera system electronics, which shall be located with the other system electronics, shall store the image and shall link it with the correct vehicle record.

The AUR system shall capture an image of the commercial vehicles USDOT number to be linked with the vehicle record. The camera shall be capable of black-and-white near-infrared images during daytime and nighttime operation. The camera system electronics, which shall be located with the other system electronics, shall store the image and shall link it with the correct vehicle record.

B.4.3 Mainline Sort System

A CMS shall be used to communicate with the driver after a mainline vehicle analysis has been completed. The Mainline Sort System (MSS) shall consist of one changeable message sign and inductive loops (as determined by the vendor), which are installed along the side of the roadway downstream from the advance WIM system. The MSS system shall be controlled by electronics in an interface cabinet, which receives the sort decision from the Weigh Station Computer. The MSS system ensures that the sign ON/OFF switching is synchronized according to the detection and tracking of a vehicle passing over strategically placed loops. In this way, only the vehicle for which the message is intended shall see the illuminated sign.

The Virtual Graphics Display shall provide manual control to the Weigh Station for the operation of the Changeable Message Sign.

The WIM Vendor shall coordinate efforts with PrePass, 360SmartView, and Drivewyze to ensure that no conflict occurs to drivers, i.e., there shall be no contradictions between the roadside signs and the in-cab transponder.

Typical roadside sign messages are as follows:

Message 1: TRUCK MUST EXIT
TO WEIGH STATION

OR

Message 2: TRUCK BYPASS
WEIGH STATION

The components of the system shall provide heartbeat communications so the System health can be monitored.

B.4.4 Mainline Compliance System

A compliance system shall be located on all northbound lanes of the mainline and the SWEF entrance ramp. The compliance system electronics shall be provided in the existing roadside cabinet at the SWEF exit ramp. The system shall consist of a set of four sets of staggered WIM quartz sensors. As commercial vehicles go over the compliance system, it shall continuously and automatically verify the trucks vehicle record from the roadway upstream. The verified vehicle shall be determined to be compliant or non-compliant. Vehicles that bypass the Weigh Station in any lane of IH 39/90 shall be detected.

All vehicle information, including violation information, shall be determined in real time and shall be displayed on the scale house Vehicle Display Windows on the Weigh Station Computer.

The accuracy of the compliance system shall exceed ASTM E1318 Type III "Standard Specifications for Highway Weigh-in-Motion (WIM) Systems. Calibration and accuracy tests shall be performed as specified below. The Contractor shall ensure the roadway meets the requirements of Section 6 of ASTM E1318.

The components of the system shall provide heartbeat communications so the System health can be monitored.

B.4.5 Ramp Lane Control System

The ramp lane control system shall consist of an existing overhead LED sign system. New electronics shall be provided to interface with it and control it from the WIM system. This sign shall display a green arrow ↓ to an oncoming truck if it is cleared to bypass the static

scale; otherwise it shall display a red X as a signal to report. Conversely, an oncoming truck shall receive a red X to bypass and a green arrow ↓ to report for the scale lane.

The system shall function under either manual or automatic control. Under automatic control, the ramp LCS shall automatically direct a suspected violator to the static scales and compliant violators to exit the Weigh Station. The virtual graphics display shall be used to control the system and shall allow the operator to direct all vehicles to either the scale or bypass lanes. The WIM system shall not be able to direct vehicles according to vehicle information collected in this mode, but shall continue to display vehicle information to the operator.

The system shall have the ability to track vehicles using in-road inductive loops while on route to the static scales.

B.4.6 Mainline WIM Settings

Using the Weigh Station Computer, the operator may set the random sort percentage. Random sorting allows the operator to require a set percentage of compliant trucks to report. This allows the enforcement officials to perform random safety checks on otherwise compliant trucks.

The Weigh Station Computer system shall receive the WIM record from the roadside WIM electronics at the mainline location. The Weigh Station Computer contains electronic records that shall be used to ascertain weight compliance. After the Weigh Station Computer creates the WIM record, it shall immediately begin to analyze the data contained in the record in order to determine whether the vehicle weights and dimensions are within local compliance regulations. If the measured vehicle weight is within the allowable limits, the driver shall be given a bypass message through the Mainline Sort System. If the vehicle is not compliant or if it is randomly selected for inspection, the driver shall receive a message to report to the Weigh Station.

The Weigh Station Computer system shall provide safety features to detect and prevent backups and unsafe conditions. These shall include:

1. An audible message to alert operators of a backup of the Weigh Station ramp
2. Automatically close the Weigh Station if a backup occurs on the exit ramp from IH 39/90. An audible message shall sound to alert operators. Once the backup has cleared the station shall automatically reopen in that direction.
3. Automatically sort all vehicles including violators to the bypass lane on static scale lane back up.

Operators shall have the capability to override the automatic close and automatic sort to bypass on static lane back up feature on the Override console.

B.4.7 Data Collection System

Vehicle information is to be collected continuously by the roadside Mainline WIM electronics for all lanes. This information shall be made available to the user and a variety of reports summarizing the data can be generated. This data can be shared between

departments if the agency responsible for weight enforcement is separate from the roadway maintenance, planning and/or design departments.

B.4.7.1 Capabilities

An operator at the site may download the vehicle data directly from the roadside WIM System Electronics, or the data may be transferred to a remote location via access through a cell modem.

Manufacturer host software can be used to automatically call one or several WIM systems to obtain traffic data from the site. The user configures the frequency of the calls and the information to be obtained. Once the data has been obtained, office analysis software capable of computing various classification schemes shall be used to provide various report capabilities based on the data collected. This system shall store at least 60 days of vehicle records (over 2 million vehicle records) in a compressed format.

B.4.7.2 Information Available

The following information shall be made available from the data collection feature of the Mainline WIM system:

- Reports over any selected time period in hourly increments, daily, weekly, or monthly
- Summary of vehicle speeds
- Summary of vehicle classification counts
- Equivalent Single Axle Load (ESAL) count
- Reports on the number of violating and non-violating axles, axle groups and gross vehicle weights
- User selected reports based on adjustable parameters such as periods and vehicle types
- Customization for generating reports for specific needs that are not available using basic parameters

B.4.7.3 Communications

Data from the Mainline WIM shall be made available via a high-speed Internet connection using a cellular modem. A new modem is to be provided as a part of this project. The monthly service and card for this is to be provided by the department.

B.5 WIM Systems Functional Requirements

B.5.1 Mainline

B.5.1.1 WIM Quartz Sensors

The accuracy of the WIM system shall exceed ASTM E1318 “Standard Specifications for Highway Weigh-in-Motion (WIM) Systems performance requirements for a Type III system. The WIM accuracy on all vehicles loaded above 60,000 pounds and traveling between the speeds of 5 to 85 miles per hour shall be:

1. Axle weights + 15% (95% of trucks)
2. Tandem weights + 10% (95% of trucks)
3. Gross weights + 6% (95% of trucks)
4. Axle spacing + 6 inches or 5% (68% of axles), whichever is greater

Blanket grind the existing concrete pavement in the mainline drive lane beginning 200 feet prior to the WIM scale location and ending 100 feet after the WIM scale location, for a total of 300 feet, with a minimum 36 inch blanket grinder to ensure that the roadway meets the requirements of Section 6 of ASTM E1318 prior to installation of the WIM system.

The WIM quartz sensors shall have the following characteristics:

- Quartz sensors shall be capable of accurately measuring gross vehicle weight, wheel load, axle load, axle group load, speed, and axle spacing when traveling at speeds of 5 to 75 mph
- The quartz sensors shall be capable of being reground up to 0.4 inch with no loss of functionality in the event of roadway deformations and move resulting in a quartz sensor unit protruding above the surrounding pavement surface
- The quartz sensors shall have uniform and consistent sensitivity without experiencing any signal drift or phantom axles
- Shall operate without degradation in ambient air temperature ranges of -20°F to +120°F and in relative humidity ranging from 10% to 95% non-condensing
- Quartz sensor performance shall be insensitive to temperature changes (i.e., less than 1% for a temperature range of 90°F). Sensing element shall be encapsulated in an aluminium die cast housing providing a vibration proof, frost-resistant, and watertight carrier unit prior to shipment
- Be capable of being installed directly into a cut out channel in the roadway pavement using a manufacturer recommended epoxy material that encapsulates each quartz sensor unit
- The output signal of the quartz sensors shall be processed by an industrial grade charge amplifier made by the same manufacturer as the quartz sensors
- Each channel of the charge amplifier shall convert the charge output corresponding to the sum of the forces acting simultaneously on a multi-unit quartz sensor to a proportional voltage. Adjusting potentiometers for the charge amplifier shall be designed as plug-in units that eliminate the need to recalibrate when replaced
- A 15 to 20 volt DC power supply shall be provided to power the charge amplifier unit
- The height of the quartz sensor shall not exceed 44mm to minimize pavement depth cut in roadway

B.5.1.2 Detector Loops

Each detector loop shall have a minimum loop area of 6-foot x 6-foot. Detector loops shall conform to WisDOT standard specifications.

Loop wire shall be 1 conductor, 14 AWG, IMSA 51-5. Loop leads shall be 2 conductor, 14 gauge, IMSA 50-2 cable.

Loops shall not be cut directly into the existing roadway and loop sawcuts shall not be exposed to the roadway surface. In situations where the roadway is concrete pavement and is not continuously reinforced, the appropriate concrete pavement section of roadway shall

be removed, loops shall be installed, and the appropriate concrete pavement section shall be replaced.

Detector loops shall be provided in order to control the sign and for the system to operate as described in these special provisions. Loop detectors shall be installed for the WIM system electronics of the mainline WIM and compliance systems. The mainline WIM and compliance systems shall use the signals from these detector loops to switch the message sign and to track vehicles. The CMS sign shall be switched in a tracking sequence to direct a sorted vehicle to enter the Weigh Station.

B.5.1.3 Compliance System

The compliance system may consist of vehicle detection loops and WIM quartz sensors in the following configuration:

"loop – right WIM quartz sensor – left WIM quartz sensor

The compliance system shall monitor vehicles signaled to bypass or report the Weigh Station. It shall be interfaced to the Weigh Station Computer.

An audible alarm shall be sounded on the Virtual graphics display in the event that a commercial vehicle does not take the lane as directed by the Mainline Sort System.

B.5.1.4 WIM Electronics

The system electronics shall be capable of receiving and analyzing the data gathered from the Mainline WIM and Compliance System locations. The electronics shall also be responsible for communicating and transmitting vehicle weight data from the WIM site to the Weigh Station Computer in the SWEF building.

The system electronics shall be capable of receiving inputs from the WIM quartz sensors and loops, as well as serial and digital devices. Output control options shall be included for a variety of serial, digital and AC power devices, such as CMS, and LCS.

The system shall be compatible with the existing automatic vehicle identification (AVI) equipment, as specified by PrePass. The system shall also interface with 360SmartView and Drivewyze. Ports and software are to be included for communication with both systems.

All quartz sensor modules shall be field replaceable and every module shall feature self-testing and built-in fault diagnosis.

The Mainline WIM system shall be all new components provided in the existing roadside cabinet to house the System Electronics and the overview image freeze frame camera equipment, the LPR equipment, the AUR equipment, and other system peripherals. The Ramp WIM cabinet shall have System Electronics, as well as the other system peripherals for the location. The electronics for the AVI reader located on the Mainline WIM section are existing and have been supplied by PrePass. The electronics and software for the 360SmartView system shall be provided by others.

All wires from quartz sensors, loops, sign control lines, shall be terminated on terminal strips or screw terminal connectors. The terminal strips shall be identified by terminal strip number and screw connection number. These terminal strips shall be readily accessible. All cables shall be long enough to easily reach these terminal strips. Terminal strips, splices, or other type of connections prior to these standard terminal strips shall not be allowed except for splicing of a loop to a shielded twisted loop lead.

All AC power connections shall be shielded to prevent electrical shock.

The System Electronics shall abide by the following requirements:

1. Communications
    a. On-board Ethernet interface (wireless or fiber)
    b. One RS-232 serial interface dedicated to external interface.
    c. Local user interface for system configuration and fault diagnosis.
    d. Remote administration via Telnet or Windows remote desktop.
    e. Remote file download via FTP.
2. Peripherals
    a. Non-volatile storage for vehicle information to prevent data loss during power outages:
    b. Sensor inputs from WIM quartz sensors and loops
    c. Output control for CMS and LCS.
3. Software
    a. Records data logs on operational status, condition and safety system activity.
    b. Weight Compliance and Classification with user-defined classification scheme.
    c. Serial output compatible with PrePass and others.
    d. Automated Mainline and Ramp Weigh Station.
    e. Data Analysis and Reporting.

B.5.1.5 Overview Camera System

The Overview Camera System shall consist of the following system components:

1. Color and Black/White video camera
2. Illuminator system
3. Video capture system

The video system shall monitor traffic flow on the mainline. It shall capture still images of trucks having violations for identification and enforcement purposes. The images shall be displayed on an operator interface located in the scale house. Each vehicle record number shall be displayed with the vehicle image.

One camera shall be provided and installed on a pole located near the Mainline WIM location. The camera shall provide overview images of the passing commercial vehicles, detailing their cab and side. Color images shall be provided for daylight use, and black/white images shall be provided for night use.

The overview capture system shall be located in one of the System Electronics. The overview capture system shall provide control and display facility to display image outputs from one source to one monitor.

B.5.1.6 LPR System

The LPR system shall be capable of collecting, storing, and transmitting all commercial vehicle license plate images and OCR data to the Weigh Station Computer for configurable periods. The OCR read accuracy on license plates shall meet 90% of readable plates including jurisdiction at night.

B.5.1.7 Automatic USDOT Reading System

The AUR system shall be capable of collecting, storing, and transmitting all commercial vehicle license plate images and OCR data to the Weigh Station Computer for configurable periods. The OCR read accuracy shall meet 75% of readable numbers.

B.5.1.8 Mainline Sort System Changeable Message Sign (CMS)

The Mainline Sort System shall consist of the following system components:

1. One existing Changeable Message Sign (CMS) relocated to new position
2. Detector loops (as determined by vendor) to track vehicle compliance.

The CMS shall direct vehicles to enter the Weigh Station or bypass the Weigh Station, based on the results of the mainline sort decision.

The CMS, under control of the Mainline WIM system, shall synchronize the sign switching upon detection of the tracked vehicle passing over or through strategically located detector loops.

The CMS, under control of the Mainline WIM system, shall also be consistent with the PrePass notification signal to the PrePass in-cab transponder. The WIM System, upon notification from PrePass, shall blank all CMS such that all messages regarding truck compliance and reporting instructions are decided by PrePass and communicated via transponder.

The CMS shall be mounted on a breakaway steel sign supports conforming to the requirements of standard spec 635 and standard spec 636. Concrete bases along the mainline shall be a minimum of 32 feet from the edge of travel lane and flush with the surrounding ground.

When not energized, the sign shall completely blank out without any ghost images.

B.5.2 Compliance/Ramp Area

B.5.2.1 WIM Quartz Sensors

The WIM quartz sensors in the compliance area shall be the same as the Mainline WIM quartz sensors and meet the requirements specified in section B.5.1.1.

B.5.2.2 Detector Loops in New Roadway

Loops in new roadway shall meet the requirements specified in section B.5.1.2.

B.5.2.3 Detector Loops in Existing Station Roadway

Each detector loop shall have a minimum loop area of 6-foot x 6-foot.

Loop wire shall be 1-conductor, 14 AWG, IMSA 51-5. Loop leads must be 2-conductor, 14 gauge, IMSA 50-2 cable.

Loops can be cut directly into the existing roadway and sealed.

B.5.2.4 Electronics

The Compliance System Interface Electronics shall be located in the existing roadside cabinet. The electronics shall be responsible for retrieving truck data and communicating it to the Weigh Station Computer in the scale house.

The electronics shall include interfaces to the following components:

1. Weigh-in-Motion quartz sensors
2. Loops
3. Lane directional signals
4. Weigh Station Computer system

The electronic system must be of a modular design to aid in system maintenance, troubleshooting and in-field servicing.

All components of the electronic system, including inductive loop detectors, shall contain necessary electrical protection to prevent damage from electrical surges, spikes, and the effects of lightning.

The system must be of a durable, industrial design and construction and enable continuous operation, with automated startup in the event of a power outage.

All quartz sensor and ancillary equipment connections must be conveniently located on the system front panel. All connections, where possible, shall be a plug-in, quick-connect style.

Where possible, all printed circuit boards and components shall be of a commercially available design. This includes, but is not limited to; the system central processing unit (motherboard) and CPU related interfaces such as digital input/output interfaces.

The specifications for the Compliance system electronics are to follow the minimum specifications as set out for the Mainline WIM Electronics.

All cutouts and openings in the electronics housing cabinet shall be vermin proofed.

All wires from WIM quartz sensors, loops, sign control lines, shall be terminated on terminal strips or screw terminal connections. The terminal strips shall be identified by terminal strip number and screw connection number. These terminal strips shall be readily accessible. All cables shall be long enough to easily reach these terminal strips. Terminal strips, splices, or other type of connections prior to these standard terminal strips shall not be allowed except for splicing of a loop to a shielded twisted loop lead. All AC power connections shall be shielded to prevent electrical shock.

B.5.2.5 Lane Control System (LCS)

The existing Ramp Lane Control System (LCS) signals and structure shall be reused and signal vehicles to the proper lane as determined by the WIM system. The system shall use signals from existing loops to switch the lane directional signals

B.5.3 Scale House

B.5.3.1 Weigh Station System Operational Overview

The Weigh Station system shall be all new and located in the scale house. It shall process data from the Mainline and Compliance WIM electronics and static scale, for central monitoring and control of the facility operation. The system shall provide two operator displays at the scale house. The operator can monitor vehicle movements, view and print reports and adjust system parameters, i.e., alter message signs, adjust random sorting %, etc.

The Weigh Station System shall be made up of the following components:

- Vehicle Display Window (displays will vary by manufacturer)
- A Virtual Graphics Display
- An Override Console
- A Weigh Station Computer
- Static Scale Manager

B.5.3.2 Vehicle Display Windows

The Vehicle Display Window shall display:

- sequence number
- time and date
- class
- speed
- gross vehicle weight
- lane-time and date
- direction of travel
- OCR read of the vehicles license plate and jurisdiction
- OCR read of the vehicles USDOT number
- violations highlighted in red
- right and left wheel weights per axle with violations highlighted in red
- individual axle weights with violations highlighted in red
- individual, front bridge, rear bridge, and full vehicle spacing
- tandem weights as measured by the WIM electronics with violations highlighted in red

- front and rear bridge weights as measured by the WIM electronics with violations highlighted in red
- thumbnail image of the vehicle from the overview camera
- thumbnail image of the USDOT number
- thumbnail image of the vehicle license plate

A vehicle record shall be displayable in either graphic form or in text form. Another alternate shall be a tabular view of all records in the queue.

The length from axle to axle shall be shown on a linear scale with axle spacings plotted below the scale line. Red text for an axle shall indicate the location of an overweight axle or axle group.

The display of vehicle record must show the following violation information in addition to dimension and weight violations:

1. Vehicle speeding
2. Credential

The vehicle display windows shall allow the following options at any time without going to alternate screens or menus:

1. Freeze vehicle record
2. Print vehicle record
3. Double click on the overview thumbnail image to see a larger view

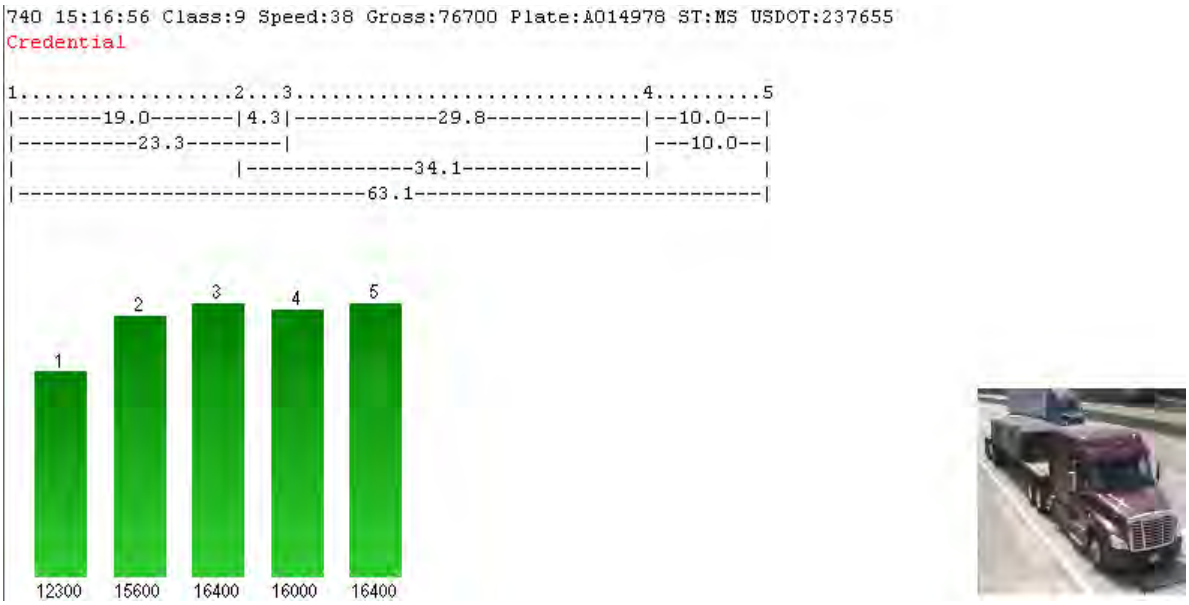
Each vehicle record shall contain a digital image of all vehicles and shall be similar to the following examples.

```
747 15:21:51 Class:9 Speed:36 Gross:81400 Plate:2VG154 ST:OK USDOT:1202
AxleOverWt BridgeOverWt TndmOverWt GrossOverWt Credential

1.................2...3.....................................4...5
|------17.5-------|4.3|----------------35.1----------------|4.0|
|---------21.8--------|                                      |
|                  |--------------------43.4--------------------|
|-----------------------------60.9-----------------------------|

Axle      1      2      3      4      5
RGHT   5700   8200   8400   7600  10100
LEFT   6100   7800   8300   9000  10200
TOTL  11800  16000  16700  16600  20300
Tndm:             32700          36900

InBr:   1-3 44500  2-5 69600
```



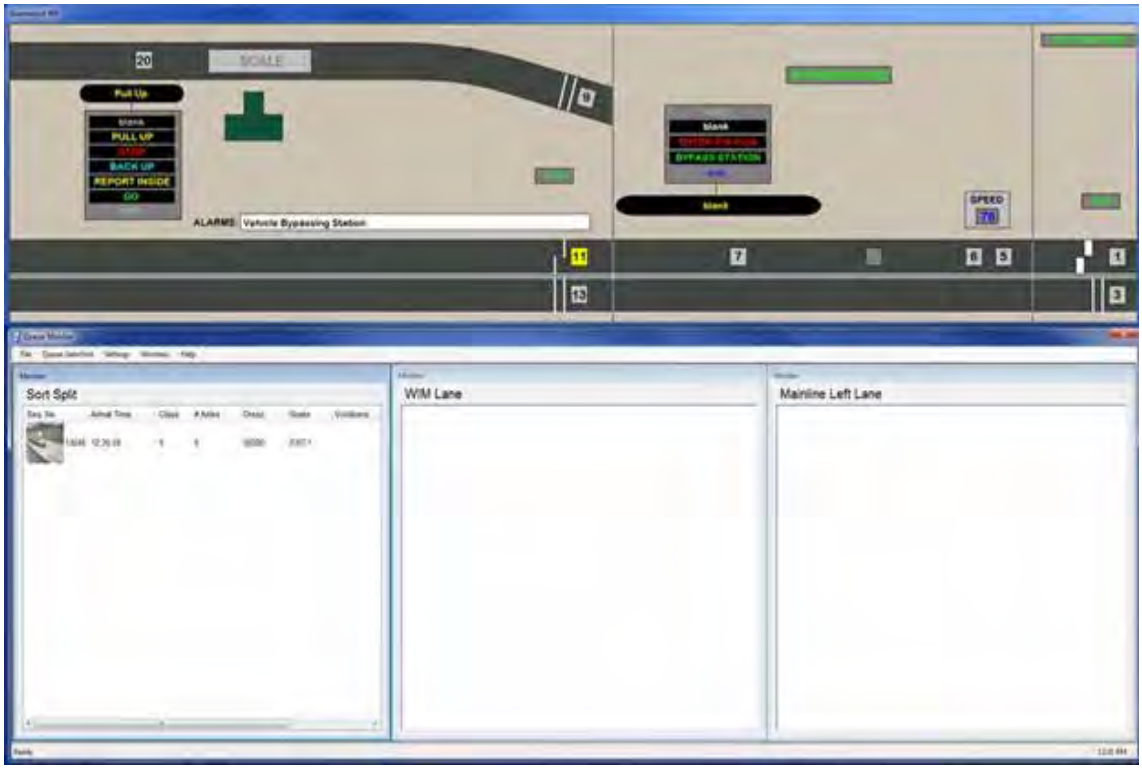
B.5.3.3 Virtual Graphics Display

The Virtual Graphics Display shall provide software representing the overhead layout of the Weigh Station on the Weigh Station Computer to provide control and monitoring of the Weigh Station. The graphics display must be software based. The Station Console shall provide the ability for an operator in the Weigh Station to select the control operation of the Mainline Sort System CMS and Ramp LCS manually. The graphics display shall have visual indicators to identify the mode of control of system signs and signals. In addition vehicle movement information shall be displayed using indicators on the graphical panel. It shall provide the following functions:

1. Select automatic sort control of each system or the manual control by the operator
2. In manual control of the Mainline CMS by an operator, it can be set for all vehicles to enter the Weigh Station or to bypass
3. In manual control of the Ramp LCS by an operator, it can be set for all vehicles to come to the static scale or the bypass lane
4. Real-Time monitoring of the Weigh Station operation by showing indicators when the appropriate sensors are activated and deactivated including loops
5. Graphics representing the color and status of the directional signals, graphics shall continuously display the status of the mainline message signs, overhead signals, OPEN/CLOSED signs, static scale message sign, and bypass lane message sign
6. Select automatic sort control of the bypass and static scale lane VMS's or manual control by the operator
7. Manual selection of the bypass and static scale lane VMS messages
8. The Weigh Station system must provide an audible warning for the following conditions:
    a. WIM scale backup
    b. Weigh Station violator
    c. Violator in the bypass lane
    d. Weigh Station automatically closing because ramp is backed up

e. Weigh Station is automatically reopening because ramp has cleared
f. Vehicle waiting on the static scale

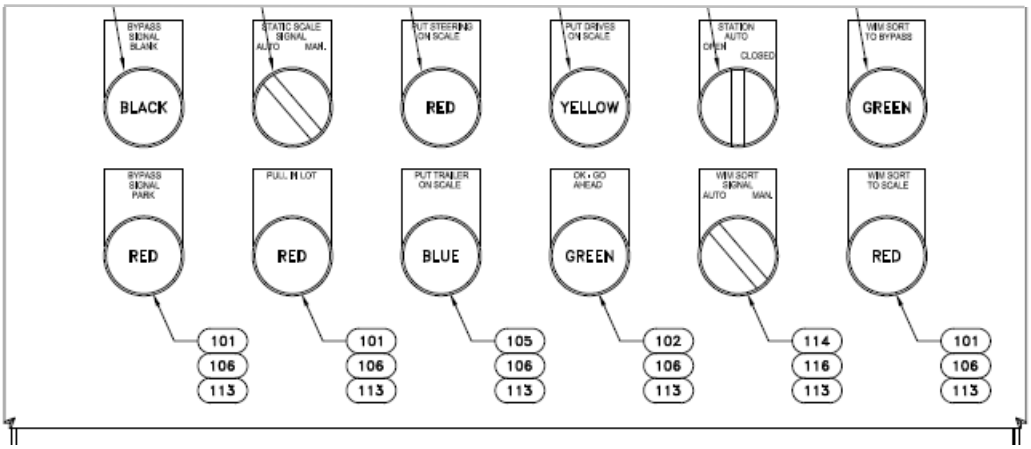
9. Include a 22-inch (minimum) widescreen flat panel monitor with speakers and shall interface with the Weigh Station Computer. This monitor shall be one of the two monitors located at the Weigh Station Computer
10. Provide a graphical representation of the Weigh Station layout with symbols to indicate the function of vehicle tracking devices
11. Allow for a true manual control of all signs
12. Shall match the image below



B.5.3.4 Manual Override Console

A Manual Override Console shall be provided as an interface that allows the operator to override the Mainline WIM and Compliance Systems in order to gain control of various system components. The console shall include control of RIGHT LANE/ALL LANES signs and the OPEN/CLOSED signs. The console shall also include the ability to control the static scale message sign and turn the scoreboards on/off.

The override console shall provide the ability for the operator to manually override all signals and signs. It shall be a minimum of 24" long and 10" wide with large push buttons and switches to allow officers to quickly locate and change signal controls when override is required. The Override Console must be operationally independent of the weigh-in-motion interface electronics, the Virtual Graphics Panel, and the Weigh Station Computer to control all signs and signals. The override console shall remain operational even if the Weigh Station Computer is not functioning with the exception of the Variable Message Signs.



B.5.4 Weigh Station Computer

The Weigh Station Computer shall be:

1. Be an Intel microprocessor based computer with the Microsoft Windows 8.1 or 10 operating system.
2. Have the following minimum features and configuration:
   a. Most current PC standards for memory, hard drive, and other hardware
   b. Two 22-inch (minimum) widescreen flat screen color monitors with non-glare screen
   c. Keyboard
   d. Mouse
   e. System utilities and diagnostic software
   f. Surge protection
   g. System password protected lock for user access restriction
   h. All access ports, cables and accessories to provide a working computer.

The Weigh Station Computer shall provide the following functions:

1. Perform mainline and ramp sort operation
2. Weigh all vehicles travelling in the right lane
3. Classify and weight all vehicles travelling on all instrumented lanes of the highway with WIM quartz sensors
4. Perform weight compliance analysis on vehicles in accordance with department regulations
5. Monitor safety conditions of the facility these include:
   a. A WIM scale back up
   b. Ramp back up
   c. Static scale lane back up
6. Perform sorter operation in accordance with decisions based on weight compliance analysis, other violations (speeding, improper maneuver, sudden speed change, etc.), Virtual Graphics panel Override console selection, safety conditions, and operator selected action
7. Insert sequence numbers for vehicle records for tracking purposes
8. Display of vehicle record in multiple queue windows
9. Track vehicle movement in the execution of sorter operation
10. Control message display of the CMS/LCS to synchronize with the movement of a vehicle being tracked

11. Provide vehicle records for those that have been sorted to or come to the static scale
12. Automatically position each vehicle on the static scale using the static scale VMS sign
13. Provide real time display and control of the static scale
14. Allow operators to automatically sequence vehicles across the static scale or manually weigh by accumulating axles
15. Automatically determine and provide operators feedback based on whether a vehicle is actually overweight based on axle spacing, axle, axle group, gross, and front/rear bridge weights based on Wisconsin regulations
16. Automatically or manually release vehicles that are not overweight based on Wisconsin regulations and do not have other violations
17. Allow operators to print weight tickets
18. Provide audible message alarms to alert operators of conditions that may require their attention
19. Provide reports on system operation
20. Perform data collection, data storage, file management and report generation functions for collected vehicle information
21. Allow adjustment of WIM and system settings

The Weigh Station system shall have application programs to detect prolonged power failure conditions to initiate orderly shutdown operation.

B.5.5 Scale Manager

The Scale Manager shall be software located on the Weigh Station Computer, and facilitate processing vehicles that are sorted or volunteer to come to the static scale. As officers primarily focus on vehicles that are potential violators this shall be the main screen that they work with. The screen shall also give the operator the ability to control system settings and view and run reports. It shall provide the following functions:

1. Interface with the static scale indicator and WIM systems
2. Display and accumulate static scale weights and display WIM data for the vehicle that is positioned on the static scale
3. Provide adjustable thresholds to each steer axle, axle, tandem, front bridge, rear bridge and gross weight based on Wisconsin regulations for axle spacing and weight
4. Automatically check weights to thresholds and release vehicle if in auto mode or alert operator of violation with audio and visual alerts
5. Automatically or manually allow operators to control the static scale sign with buttons matching the sign messages
6. Provide the following features within the display
    a. Selectable auto release
    b. Display shift counts
    c. Violations displayed in red
    d. Zero scale
    e. Reset scale

7. Print requirements include
    a. Site identification
    b. Time and date
    c. License plate
    d. USDOT number
    e. Individual weights (axles and axle groups)
    f. Gross weight
    g. WIM axle spacing
    h. Thumbnail image of vehicle
8. Shall continuously show updated static scale counts for each shift for the day
9. Utilities
    a. View individual live raw counts for static scale load cells
    b. Allow remote diagnostics access

If a vehicle is not positioned properly or is a weight violator the operator shall be notified by visual and audio alarms and the vehicle shall not be auto-released when in auto-sequencing mode.

To eliminate costly calibrations, the Weigh Station System shall electronically interface with the Mainline WIM system for auto-calibration. On a continuous basis the Weigh Station System shall ensure WIM accuracy and calibration.

Calibration of the mainline WIM shall be automatic and performed by electronic recording of WIM and static weights on 50 vehicles from the vehicle stream which are loaded to within 75% of the legal allowable limit. Auto-calibration shall be done with different factors for speed range and vehicle class to provide more accurate results. The settings shall allow for a minimum of 10 different speed ranges and 13 different classes to be used.

Acceptance testing shall confirm the WIM accuracy performance which shall be verified in a report. This report shall be created by continuous (24/7) electronic recording of vehicles from the vehicle stream. The actual stable static weights and WIM weights shall be saved in a common database to determine WIM scale accuracy compliance, as opposed to the method described in ASTM E 1318-09. This information is to be easily accessible to state personnel in reports and shall be printed on a weekly basis throughout the continuous operating test and in everyday use of the Weigh Station afterwards.

The accuracy requirements required under the WIM scale section above exceeding ASTM E1318 for a Type III WIM shall be met.

All reports shall be available from the Scale Manager for one central place to view reports. The following reports shall be available:

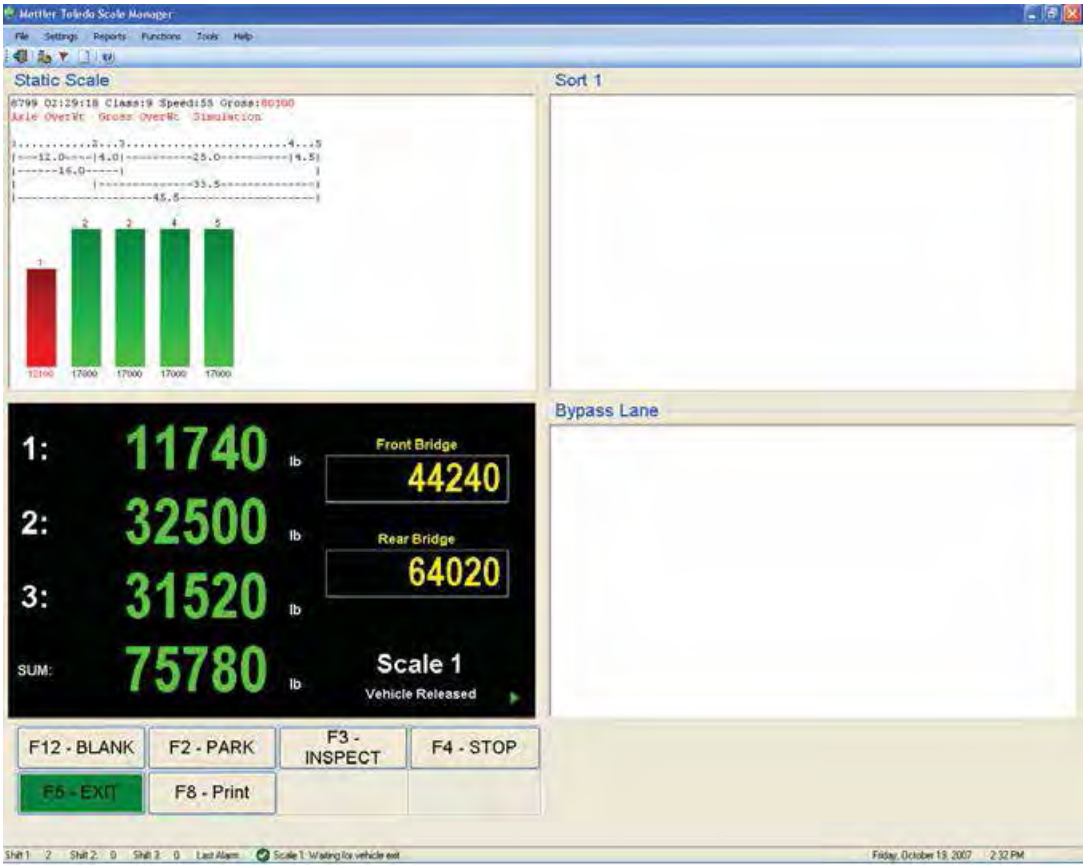
1. Number of vehicles per lane across the WIM by class, hour, and shift for a selected period
2. Number of trucks per lane across the WIM by hour, and shift for a selected period
3. Axle and GVW weights by class for a selected period
4. Number of vehicles per lane by weights, by class and by hour for a selected period

5. Number of vehicles across the static scale by class, hour, and shift for a selected period
6. WIM accuracy performance by class for a selected period

A selected period for report generation shall include starting date and ending date. Reports shall be generated manually by operator action. Reports shall have an option to display a chart view, and to be exported into Microsoft Office compatible formats.

The Scale Manager shall have utility programs to do the following:

1. Set up and configure the operation of the Mainline WIM system
2. Set up and configure the operation of the Mainline Sort System
3. Initiate and reset traffic counting operation of the WIM System
4. Perform maintenance functions of the Weigh Station systems



B.6 Conduit and Pull Boxes

All cables shall be in conduit unless specifically approved by the engineer. All conduit and pull boxes shall meet the requirements of standard spec 652 and 653.

All materials shall comply with the "National Electrical Code" and the current standard specifications, and special requirements by the department weigh-in-motion and automatic vehicle identification system specifications. Duct seal shall be used to seal all conduits in

the cabinets and in all junction boxes. All conduits shall have a polyethylene pull string with at least 210-pound break strength left in place at completion of construction.

Separate conduits shall be used for AC/DC power and low voltage signal cables. Low voltage signal cables shall include video, digital communication, sensor signal cable, and sensor excitation cables where voltage is under +/- 20 volts DC. Conduits for video and RF cables shall be of a large enough size to accommodate the maximum bend radius using factory 90-degree "bends".

All cables shall be in conduits unless specifically approved by the engineer.

B.7 Changeable Message Signs (CMS)

Furnish and install one OPEN/CLOSED, one ↗/CLOSED, and one RIGHT LANE/ALL LANES changeable message signs. Each unit to be 2-message, 1-way, LED blank out signs with white illumination.

1. Messages shall be formed by rows of white LED pixels.
2. All letters shall be 18-inch series E formed by single rows of LED pixels and the 45-degree up arrow shall be formed by outlined rows of LED pixels.
3. Dimming option with photocell shall be provided.
4. 120 VAC shall be required for activation of messages.
5. 2 ½-inch aluminium angle shall be provided top and bottom for mounting.
6. Exterior of sign housings shall be wet painted, semi-gloss black enamel.
7. Replace all wiring from Weigh Station to the OPEN/CLOSED signs.
8. Wireless communication system shall be provided between the Weigh Station and the RIGHT LANE/ALL LANES sign.

B.8 Portable Static Wheel Load Scales

Furnish two sets of six scale units meeting the following specifications. The units shall be portable hydraulic/analog (mechanical) designed to weigh commercial vehicles. The unit shall be applicable for use in law enforcement as a wheel-load weigher for weighing commercial vehicles which includes large trucks and buses.

Each unit shall have a large active platform measuring a minimum of 26-inches x 15-inches to accommodate the space needs of dual and large tires. The height shall not exceed ¾-inch in order to negate the need of ingress and egress ramp. The total physical weight of the unit shall not exceed 35 pounds. Each unit shall be completely waterproof and dustproof. Each unit shall be able to accurately weigh up to 20,000 pounds with:

1. A rate of "+ or –" 50 pounds up to 2,500 pounds
2. A rate of "+ or –" 100 pounds between 2,500 and 10,000 pounds
3. A rate of "+ or –" 100 pounds between 10,000 and 20,000 pounds

The weight gradations shall be easily readable and must be in 50 pound or less increments. The readout system shall be capable of indicating weights from 0 to 20,000 pounds. The

unit must have incorporated a simple zero adjust method to facilitate zeroing before each weighing.

Each unit shall remain within the acceptance tolerance when subjected to temperatures of 0 degrees or less to 120 degrees or more. Each unit shall be able to weigh accurately under conditions not absolutely level. Each unit shall be capable of 24 hours of continual use without need for battery recharge of external power source.

Each unit shall meet applicable technical requirements of National Institute of Standards and Technology (NIST) Handbook 44 as they pertain to specifications, tolerances, and other technical requirements for wheel load scales or Class III devices. The current NIST Handbook can be obtained at the following website: https://www.nist.gov/.

Each unit shall be capable of being calibrated with the portable manual test stand described below. All weighing and measuring devices are required by State law to have a NTEP Certificate. Any piece of equipment purchased for the purposes of calibrating/testing wheel load scales must have a NTEP certificate of conformance.

B.9 System Acceptance

The complete WIM System shall be accepted subject to fulfilling the following conditions:

1. System review
2. Acceptance tests (meeting WIM, LPR and AUR accuracy on a weekly basis).
3. Training

B.9.1 System Review

The potential WIM Vendor shall submit six copies of a system layout and cut sheets for each individual site prior to award of their subcontract. These layouts shall be submitted to the engineer for review. Approval shall be either from the engineer or designated representative. If the potential WIM Vendor does not fully meet the specifications the engineer may instruct the prime Contractor to select another vendor.

A preliminary on-site meeting shall be held after all of the old electronics have been removed to verify no equipment is being reused and to discuss Contractors' plans for the routing of conduits, cables, and placement of equipment.

B.9.2 Acceptance Test

The complete WIM System, all-inclusive as contracted, shall be designed, built and tested by the Vendor, and as proof of operation, the systems, overall and singularly, shall be tested at various times according to the test specifications. All field tests shall be performed by the WIM Vendor and observed by the engineer with all reports submitted to the engineer.

B.9.2.1 Factory Acceptance Tests

Prior to shipment of any equipment, Factory Acceptance Tests shall be performed for each system to verify the equipment operating as described in the contract documents and in accordance with the test specifications approved by the engineer. The Factory Acceptance Tests shall include at minimum the following:

1. A physical inspection to verify that the quality of material and workmanship satisfy specified requirements and standards and that the equipment and software under test are complete and ready for delivery.
2. A functional test to verify that the equipment and software operate as described in the contract documents.
3. A performance test to verify that the equipment satisfies performance and operation criteria.

For the purpose of these tests the equipment and software shall be configured as nearly as possible to the final configuration. Any field inputs not available at the factory test site shall be simulated to provide a close approximation to actual site conditions.

B.9.2.2 Site Acceptance Test

After all the equipment and software have been installed at the site, the Vendor shall run tests to ensure that all equipment shall operate as specified therein contract documents. These tests shall be witnessed or conducted by the engineer within one week of the manufacturer notifying the engineer that the system is ready for testing.

The camera systems shall be tested at the sites to verify that the images taken at daytime and night time are clear and integrated properly with the vehicle record from the systems. The Vendor shall collect data observed by the engineer and provide the results of the images taken for the duration of the testing during day and night time operation. Success shall be determined by images that are non-blurred, crisp, properly integrated, and correctly read with the vehicle data received by the systems.

B.9.2.3 Continuous Operating Test (COT)

Following successful completion of the Site Acceptance Test, a Continuous Operating Test shall be conducted for a period of fifty-six (56) calendar days.

System manufacturer shall perform the in-motion calibration tests of WIM subsystem after installation is completed and prior to beginning the burn-in period. Contractor shall provide the engineer one week's notice of the in-motion calibration tests.

- SYSTEM manufacturer shall provide calibration weights.
- COT period begins two weeks after the completion of installation and certification of the static scale.
- COT cannot begin until the static scales have been certified.
- Contractor shall submit a detailed test plan to the engineer for approval no later than 90 days after notice to proceed.
- For the COT period, the SYSTEM shall be fully operational under normal traffic conditions and operate trouble free (defined as any error that shall not reset by means of rebooting PC) for 24 hours each day for 7 days of each week for 56 consecutive days.
- Only one reboot per shift shall be allowed.
- The engineer shall check the accuracy performance by printing an accuracy report from an electronic database which is created and stored on the Weigh Station Computer.

- The report for WIM accuracy must be printed from the Weigh Station Computer by the engineer and met weekly during the APT period.
- WIM accuracy on all vehicles loaded above 60,000 pounds and traveling between the speeds of 5 to 85 miles per hour shall be as follows:
  a. Axle weights + 15% (95% of trucks)
  b. Tandem weights + 10% (95% of trucks)
  c. Gross weights + 6% (95% of trucks)
  d. Axle spacing + 6 inches (68% of axles), whichever is greater

This database shall be created by continuous electronic recording of vehicles from the vehicle stream, which are loaded to within 75% (60,000 lbs.) of the legal allowable limit.

The actual stable static weights and WIM weights shall be stored in this common database to determine WIM scale accuracy compliance, as opposed to the method described in ASTM E1318.

The images and OCR reads from the LPR and DOT reader shall be captured over a week and a report generated showing how each image was read and total read rate percentages for readable plates including jurisdiction and numbers. The images shall be provided for engineer verification. The read rates must exceed meet or exceed these specifications

The SYSTEM manufacturer must leave the site prior to the start of the COT and may only return if a problem is encountered or accompanied by the engineer.

If problems of any kind are encountered during the COT, the SYSTEM manufacturer shall be informed and problem(s) shall be simultaneously witnessed by the engineer and Contractor. If problem is confirmed by all, a strike shall be assessed and problem shall be corrected.

After confirmation from SYSTEM manufacturer that problems are solved and at the discretion of the engineer, the 56 day COT shall start over until 56 continuous days of trouble free operation are experienced. This re-start can only occur three times. A restart shall begin within two weeks of a strike.

The COT shall demonstrate to the satisfaction of the engineer that the weigh-in-motion/static enforcement system has been constructed and consistently meet the performance requirements of the plans and of these Special Provisions.

The continuous operation test shall be the basis for acceptance or rejection of the systems as a result of demonstrated performance. If the system is rejected and there have been more than three strikes and re-starts of the COT, the parties shall negotiate, in good faith, an acceptable resolution. Liquidated damages may be applied between strikes and restarts. Following such negotiations, if the same are unsuccessful, the engineer may execute the performance bond. Notwithstanding the foregoing, the Contractor shall retain/be entitled to receive all amounts paid or payable to the Contractor in accordance with the following payment schedule, agreed-to by the parties:

PAYMENT

1.	Payment upon safe and secure delivery of all equipment at a storage location approved by the engineer	20%
2.	Complete installation of the entire SYSTEM	35%
3.	Completion of calibration and burn-in	10%
4.	Completion of the COT to the satisfaction of the engineer	35%

The engineer shall issue a Certificate of Final Acceptance upon successful completion of the Continuous Operating Test and training program.

The WIM acceptance procedure for the Weigh Station system shall be based off of officers printing the database comparison of mainline WIM and static scale weights and the WIM accuracy meeting project specifications.

B.10 Training

The Vendor shall set up and conduct formal training programs for the State Patrol personnel on the operation, maintenance and installation of the system components of the complete WIM System. The training shall include the following:

1. Two half-day operator training sessions providing an introduction to the operation and installation of the complete Weigh Station system including the static scale and the functions to be performed. A class size of up to eight individuals per session can be expected.
2. Two one-day "hands-on" guidance sessions for operators in the operation of the systems. A class size of up to four individuals per session can be expected. This training shall occur during the first two days of the Continuous Operating Test.

The training program shall be scheduled the week following the completion of the operations test.

The cost for the first training sessions shall be included in the contract price. The department will, from time to time review any future training requirements. The WIM Vendor shall agree to provide future and additional training sessions upon receipt of requests from the department. The department will reimburse the WIM Vendor the cost of providing additional training sessions on a per diem basis and at a rate agreed upon by the department at the time of the request. The department will provide classroom space for the training session.

The vendor shall provide six hard copies and an electronic file of the WIM System Operator's Manual. The manual shall contain detailed information and instructions covering all aspects of the WIM system.

B.11 Warranties

The WIM vendor shall warrant all new subsystems and system components as supplied and installed for five years from the date of issuance of the Certificate of Final Acceptance of the WIM System by the engineer. This warranty and associated maintenance work are

defined and covered under a separate bid item, Weigh-In-Motion System Warranty Maintenance.

B.12 Materials
Materials for the project shall be new except where the plans and specifications explicitly state components and wiring can be reused. Materials used in the construction of this equipment shall be of good commercial quality entirely suitable for the intended purpose. Materials shall be free from all defects and imperfections that might affect serviceability of the finished product.

B.13 Standard Products
The equipment shall be constructed of standard material, so that the prompt and continuing service and delivery of spare parts may be assured. The component parts need not be products of the same manufacturer.

B.14 Lightning Protection
Ground rod(s) and lightning protection shall be provided as per manufacturer's requirements. All system components and equipment shall be properly grounded.

C (Vacant)

D Measurement
The department will measure Weigh-In-Motion System, completed in accordance to the contract and accepted, as a single complete unit of work.

E Payment
The department will pay for the measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.480	Weigh-In-Motion System	LS

Payment is full compensation for removal and disposal of old equipment along with furnishing and installing all material; performing all pavement grinding; installation of loops cut into existing pavement; and for furnishing all labor, supervision, equipment, calibrating and testing, training, tools and incidentals necessary to complete the contracted work.

Weigh-In-Motion System Warranty Maintenance, Sawing Asphalt, Sawing Concrete, Removing Pavement, Removing Asphalt Milling, Drilled Dowel Bars, Drilled Tie Bars, Base Aggregate Dense 1 ¼-Inch, Concrete Pavement Repair, Concrete Pavement Replacement, Concrete Pavement, HMA Pavement, and Signs Type II will be paid under separate bid items.

111. Weigh-In-Motion System Warranty Maintenance, Item SPV.0105.481.

A Description

Provide warranty and maintenance service for the weigh-in-motion scale system for a period of five years. This system includes weigh-in-motion sensors, cameras, system components and ancillary equipment. Provide routine maintenance on all major systems, system components and ancillary equipment at 12-month intervals. Provide emergency repair services on an as-required basis.

A.1 Warranty Bond

The contractor shall provide a warranty bond for the Weigh-In-Motion System Warranty Maintenance. The bond shall be in effect for the entire five year warranty period beginning when the Weigh-In-Motion Scale System is completed, operational and accepted. The bonding company must have an AM Best rating of "A-" or better and the contractor shall provide proof of a five year bond commitment before execution of the contract.

The warranty bond amount shall be for $75,000. The bond shall ensure the proper and prompt completion of required warranty work following completion of the contract work, including payments for furnishing all labor, equipment, and materials used according to this specification.

The contract bond, which remains in effect for one year beyond the completion of the project, shall also include warranty work as described in this article. For the remaining four year warranty period, provide documentation that the warranty bond shall be provided in a single term four year warranty bond.

Failure of the contractor or its surety to issue the warranty bond will be considered a default and will result in forfeiture of the face amount of the bond to the department.

All warranty work shall be as prescribed in this article. At the end of the warranty period, the contractor will be relieved of the responsibility to perform further warranty work, provided all previous warranty work has been completed.

Maintain insurance, in the course of performing warranty work, as specified in standard spec 107.26 throughout the five year warranty period.

B (Vacant)

C Construction

The WIM vendor shall warrant all subsystems and system components as supplied for five years from the date of issuance of the certificate of final acceptance of WIM System by the engineer.

The warranty shall cover all WIM system components, hardware and software, included in the contract for any defects in material and workmanship. This shall include:

1. All loops and WIM sensors on site.
2. Interface operations and system electronics.
3. WIM cables, connectors, terminal strips and back-up batteries.
4. New notification signs and structures.
5. Communication systems.
6. All enforcement cameras and equipment.
7. New components of the Compliance System
8. Electrical power wiring and conduit.
9. Weigh Station computer system.
    a. Scale Manager
    b. Vehicle Display
    c. Station PC
    d. Override Console

The warranty agreement shall include all:

1. Emergency repair service
2. Routine maintenance service at 12-month intervals
3. Mobilization, parts, labor and shipping.
4. Equipment updates, upgrades, modifications and recalls.
5. System interface and electronics updates, upgrades, modifications and recalls.
6. Traffic control.
7. Training for major system updates or upgrades
8. Operator refresher courses

The weigh-in-motion system shall be warranted by the WIM vendor, in writing, against defects in or from material, workmanship, lightning, and to perform as required by these technical special provisions, giving proper and continuous service under all conditions required and specified, or which may reasonably be inferred, for a period of five years from the date of acceptance. The written vendor's warranty shall be furnished to the engineer by the vendor at the time the equipment performance supporting data is submitted. The new components of the complete system shall be warranted by the manufacturer, in writing, against defects in or from material, workmanship, lightning, rodents and perform as required by these technical special provisions for the specified period or as described above from the date of final acceptance of the project.

The operation and maintenance of all Automatic Vehicle Identification (AVI) equipment, as well as all AVI-related subsystems, shall be warranted by Pre-Pass, 360SmartView, or Drivewyze. This equipment will not be included within the scope of the warranty as seen in this specification.

C.1 Scheduled Maintenance Services

The scheduled maintenance service shall include the following:

1. Signal checks and testing measures on all loops.
2. Verify proper operation of loops from Virtual Graphics interface in building.
3. Visually inspect WIM sensors from shoulder for cracks and unusual damage.
4. Visually inspect roadway around WIM sensors for deterioration or issues that could impact the sensors.
5. Check and record WIM sensor reading on each sensor in roadside cabinet.
6. Visual inspection and cleaning of system cabinets and electronics.
7. Ensure each roadside cabinet has rodent protection in place and is pest free.
8. Ensure wires are secure and conduit is in place.
9. Ensure battery backups are operating.
10. Cabinet mechanical condition inspection.
11. Clean or replace each roadside cabinet air filter.
12. Heating, ventilation and air conditioning check.
13. Verify drawings are located in cabinet.
14. Verify proper power, ground, and lightning protection.
15. Structural integrity check of all new poles and structures.
16. Test all message signs and signals are operating.
17. Inspection and verification of computer communication systems.
18. Camera inspection, testing and maintenance, including cleaning of camera lenses.
19. Parts, labor and shipping.
20. Mobilization and traffic control necessary to perform the maintenance services.
21. Perform WIM accuracy tests and adjust as required to comply with standards.
22. Provide WIM accuracy test print outs to WisDOT.

A report shall accompany the scheduled maintenance service and shall be submitted to the department. The report shall include:

1. Pass/Fail grading of all loops and sensors.
2. A checklist of all components checked as listed above, as well as the location of the components and comments on their general state.
3. A checklist and commentary detailing whether each component (as listed above) met standards or required repairs.

C.2 Emergency Repair Services

Emergency repair services shall be completed on an as-required basis. The maximum response time for emergency repair services shall not exceed 48 hours after written receipt of notice by fax. The vendor shall initiate on-site repairs within 3 business days of notification. Emergency repair services shall include all parts, labor, shipping, mobilization and traffic control necessary to perform the work.

C.3 Operator Refresher Courses

In conjunction with the scheduled maintenance services, the Vendor shall provide Operator Refresher Courses on the operation of the entire Mainline WIM system upon request. The courses shall have a maximum duration of four hours and shall be scheduled before or after the annual maintenance service. The course attendees shall be determined by the department.

D Measurement
The department will measure Weigh-In-Motion System Warranty Maintenance, completed according to the contract and accepted, as a single complete lump sum unit of work.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.481	Weigh-In-Motion System Warranty Maintenance	LS

Payment is full compensation for providing the warranty bond, all warranty maintenance service and emergency repair service for a period of five years and shall include all labor, tools, parts, shipping, mobilization, traffic control and incidentals necessary to perform the maintenance service.

112. Static Scale System Electronics, Item SPV.0105.482.

A General
Upgrade the existing commercial vehicle static scale with new electronics as described in these provisions. Equipment to be from a manufacturer experienced in design, construction, and operation of equipment for the purpose required.

Data acquired from the Static Scale System described in this specification must be such that it may be readily associated with other data for the same vehicle into a record that coherently represents data acquired from weigh-in-motion, static scale, and enforcement camera systems. The following specifications represent the minimum static scale requirements.

B Materials
The Static Scale
The existing static scale weighbridge will remain and is to be reused.

Load Cells
The load cells for the steer platform (platform 1) shall be replaced. The existing load cells will be removed and left at a designated location on-site. The new load cells shall meet the following:

1. The weighing elements shall be stainless steel hermetically sealed load cells to guard against moisture ingression and barometric effects.
2. The cells shall have moisture protection to IP 68 standards.
3. Load shall be applied to the cells without the use of links, bolts, pins cables or flexure.
4. All load cells shall be self-centering.
5. Load cells shall provide a digital signal output.
6. The load cells shall not require junction boxes and shall be connected in a simple network to prevent from costly service calls.

7. The load cells shall be a minimum of 50 tons capacity each, and each cell must have stainless steel, braided covering on the load cell cable.
8. All load cells must be manufactured of stainless steel.
9. The scale shall have self-diagnostic capabilities able to identify load cell problems and failure.
10. The scale shall be able to identify each load cell individually.
11. The scale shall have the ability to view all of the load cells in the scale system simultaneously.
12. Diagnostics to have the capability to predict the failure of a cell before it actually happens to prevent down time. The diagnostics are to measure load cell counts (not weight) to determine reliability of the load cells. The following diagnostics shall be available at a minimum:
    a. Individual cell not responding
    b. Individual cell negative out of range
    c. Individual cell command failed
    d. Individual cell enclosure breach
    e. Power up Zero
    f. Major and minor overvoltage or overcurrent
    g. Major and minor under voltage
    h. Individual cell not found
    i. All errors shall be logged in the static scale electronics with the capability to be emailed when an error occurs
13. The design shall permit the individual load cells to be matched and the scale sections to be electronically calibrated.
14. Load cell shall have been tested by a 3rd party lab and have passed a simulated lightning strike up to 80,000 amperes. Documentation to be provided with submittals verifying this.

The load cells for the drive and trailer platforms (2 and 3) shall be reused, but new smart junction boxes shall be installed. The new smart junction boxes shall meet the following:

1. Accepts existing analog signal from existing load cells.
2. Addresses each load cell and analyzes its signal.
3. Only one smart junction box shall be required per platform. Offerings that require one box per section (pair of load cells) will not be acceptable.
4. Signal to indicator to be digital.
5. Constructed of stainless steel.
6. NEMA 4X enclosure.

B.1 Technical Specifications

After upgrades scale shall meet the following:

Maximum Capacity (tons)	100 tons
Dual Tandem Axle Capacity (lbs.)	70,000 lbs

(Concentrated Load Capacity (CLC) is not the same as dual tandem axle capacity)

Scale Accuracy	0.1%

Load Cells Platform 1:	
Load Cell Type	Rocker Column
Rated Capacity	50t (100,000 lbs)
Safe Overload	200 %
Ultimate Overload	300 %
Safe Sideload	100%
Material	Stainless Steel
Load Cell Cable	4 conductor 22 AWG Shielded
Load Cell Cable Protection	Stainless Steel Outer Jacket
NEMA Rating	6P
Rated Excitation	5 to 15 Volts
Temperature Compensation Range	-10 to +40 °C

B.2 Static Scale Electronics

The existing scale instrument shall be removed and returned to WisDOT. Furnish and install one new electronic instrument to drive the upgraded scale. Equipment to consist of parts desired to act as a unit by a manufacturer experienced in design construction, and manufacture of electronic components, and operation of equipment for the purpose required.

The scale instrument and all peripheral devices shall be designed to function as a unit. The equipment shall have the following specifications:

1. Static scale indicator.
2. Microprocessor based item(s) for:
   a. Scale read out
   b. Control and data handling functions
3. The scale instrumentation shall be compact and approved by the engineer Manufacturer shall provide proof that the instruments have been in use successfully for at least two years.
4. Provide microprocessor-based digital instrument with Ethernet weight output to the static scale PC and the monitor for totalizing and printer controls.
5. This connection shall provide diagnostics of static scale load cells (load cell raw counts) to the static scale PC.
6. Provide with software diagnostics to facilitate fault finding.
7. Provide a certificate of conformance from the NIST Handbook 44, latest adopted edition.
8. The static scale instruments shall include:
   a. Must be able to power up to 4 scale platforms.
   b. All instrument setup functions and calibration sequences are programmable through the keyboard/display. No at-scale adjustments required for these functions.
   c. Minimum of 15 updates per second.
   d. One display showing individual axle weights and the summation of the individual weights.
   e. Shall be suitable for desktop or set-in mounting, level or at angle.

f. Display the raw counts of each individual load cell without disconnecting any of the load cells from the system.
g. Perform all static scale instrument set-up functions via static scale internet explorer web pages. Download to instrument via Ethernet connection.
h. Selectable increments size from 20 to 50,000.
i. Display up to 1 part in 10,000.
j. Internal resolution 1 part in 1,000,000.
k. Setup functions stored in nonvolatile RAM memory.
l. Adjustable digital filtering.
m. Adjustable automatic zero maintenance.
n. Serial ASCII output port configuration for connection to computer. Baud rate to be selectable from 300 to 9600.
o. Motion detection should be selectable from ±0.5, ±1.0, ±2.0, ±3.0 increments
p. Display verification test.
q. Display height at .5 inches with wide angle view.
r. Static scale instruments shall meet the current specifications of the NIST Handbook 44, current adopted edition.
s. The instrument shall be UL/CSA listed.
t. Provide one button printing of weight ticket or axle accumulation.

B.3 Static Scale Operation Specifications

1. The completed static scale shall work along with the WIM system to provide all the functionality described in the Weigh-In-Motion System special provisions.
2. The scale instrument shall only receive digital information from the load cell assemblies on platform 1. There shall be no analog to digital conversion function in the scale instrument or in junction boxes between the load cell and the scale instrument on platform 1.
3. The scale instrument shall be capable of assigning each digital load cell with its own unique identification number and shall be capable of displaying the weight reading of each individual load cell through the instrument without disconnecting any of the load cells from the system.
4. The scale instrument shall communicate with each individual digital load cell.
5. The scale instrument shall be capable of being programmed and calibrated in pounds or kilograms.
6. The display shall be a full color graphic, alphanumeric LED back-lit display with the capability to prompt the operator through all operations with true alpha characters. Segmented LED alphanumeric displays are not acceptable.
7. The scale instrument shall communicate static scale weights to the Scale Manager on the central Weigh Station computer to display weights on the computer system screen, and to allow the accurate weighing of the truck on the static scale.
8. The scale instrument shall have a program to accumulate up to 19 axle and axle groups and print 8.5 x 11 weight tickets that is independent of the WIM system. This program should work as a backup in case the Station system is not working.

9. The instrument shall have the capability to run multiple scales as a standard unit. Adding extra boards at a later date is to be considered not meeting specifications. The instrument shall have self-diagnostics built in that allow the technician to view all load cell outputs simultaneously.
10. Simultaneous viewing of digital load cell output allows for fast easy analysis of the scale operating system. Viewing cell outputs one at a time is not acceptable.
11. The system shall have the ability to be 100% calibrated from within the scale house. Corrections or calibration adjustments at the scale through summing boxes are not acceptable.
12. Surge Voltage Protection on the system shall be optically isolated at each digital load cell, and transformer coupled from the instrument.
13. Scale shall have the ability to be analyzed via remote software.
14. The scale instrument shall have the ability to be programmed via remote software.
15. Remote software diagnostics shall allow simultaneous viewing of all digital load cells in counts, and actual weight that each individual load cell is sensing. Viewing of cells one at a time is not acceptable.
16. Remote software service shall be capable of displaying load cell zero calibration counts, current zero counts and actual mV/V output of each cell simultaneously. A printed report of this information is possible from the remote software.
17. Remote software service shall be capable of performing a self-test on all communications ports and report the current setup.
18. Original calibration values shall have the capability to be retrieved and stored via remote software.
19. Original configuration values shall have the capability to be retrieved and stored via remote software.
20. For non-commercial applications, scales shall have the capability to be set up and calibrated via remote software.

B.4 Ticket Printer Requirements

The existing ticket printer shall be removed and disposed of.

Provide the following:

1. Provide one laser-type printer.
2. Minimum print speed of 12 pages per minute.
3. Minimum print quality of 600 dpi.
4. Minimum 8 Mb of memory.

B.5 Scoreboard Sign Requirements

The existing scoreboards shall be removed and disposed of.

Four new displays shall be supplied. One to display the axle weights on each of the three weigh pads and one to display the GVW. Scoreboards shall be able to be turned off and on from the manual override console. Each display shall meet the following specifications:

Display	Six digits, >/= 120 mm high
Viewing Distance	Up to 150 feet
Power	AC: 100~240VAC 50/60 Hz
Enclosure	IP56 Rated
Input	RS232/485/20mA CL
Digital Color	Fluorescent red
Lighting	LED
Operating Temp.	-20C to 70C
Humidity	0% to 99% , non-condensing

C Construction

The Static Scale System vendor shall warrant and maintain all subsystems and new system components as supplied and installed for five years from the date of acceptance by the engineer. This warranty and associated maintenance work are defined and covered under a separate bid item, Static Scale System Warranty Maintenance

D Measurement

The department will measure Static Scale System Electronics, completed according to the contract and accepted, as a single complete lump sum unit of work.

E Payment

The department will pay for measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.482	Static Scale System Electronics	LS

Payment is full compensation for removal and disposal of old equipment along with furnishing and installing all materials; making the system operational; testing; providing required training and warranties; and for furnishing all labor, supervision, equipment, tools, and incidentals necessary to complete the contract work. Materials and equipment included in the Static Scale System Electronics are a digital conversion including instrumentation, printer, four-line scoreboard, cabling, and calibrating and testing.

113. Static Scale System Warranty Maintenance, Item SPV.0105.483.

A Description

Provide warranty and maintenance service for the new Static Scale System Electronic components for a period of five years. Provide routine maintenance on all major systems, system components and ancillary equipment at annual intervals. Provide emergency repair services on an as-required basis.

The static scale equipment shall be warranted by the manufacturer, in writing, against defects in or from material, workmanship, lightning, and to perform as required by these technical special provisions, giving proper and continuous service under all conditions required and specified, or which may reasonably be inferred, for a period of five years from the date of acceptance. The manufacturer's routine maintenance schedule shall be stated. The

written manufacturer's warranty shall be furnished to the department by the contractor at the time the equipment performance supporting data is submitted. The warranties shall also state they are subject to transfer to the department.

The new static scale equipment weighing instruments, load cells, and hardware shall be warranted by the manufacturer, in writing, against defects in or from material, workmanship, lightning, and perform as required by these technical special provisions for the period of five years or as described above from the date of final acceptance of the project.

A.1 Warranty Bond

The contractor shall provide a warranty bond for the Static Scale System Warranty Maintenance. The bond will be in effect for the entire five year warranty period beginning when the Static Scale System Electronics are completed, operational and accepted. The bonding company must have an AM Best rating of "A-" or better and the contractor shall provide proof of a five year bond commitment before execution of the contract.

The warranty bond amount shall be for $25,000. The bond shall ensure the proper and prompt completion of required warranty work following completion of the contract work, including payments for furnishing all labor, equipment, and materials used according to this specification.

The contract bond, which remains in effect for one year beyond the completion of the project, shall also include warranty work as described in this article. For the remaining four year warranty period, provide documentation that the warranty bond shall be provided in a single term four year warranty bond.

Failure of the contractor or its surety to issue the warranty bond will be considered a default and will result in forfeiture of the face amount of the bond to the department.

All warranty work shall be as prescribed in this article. At the end of the warranty period, the contractor will be relieved of the responsibility to perform further warranty work, provided all previous warranty work has been completed.

Maintain insurance, in the course of performing warranty work, as specified in standard spec 107.26 throughout the five year warranty period.

B (Vacant)

C Construction

C.1 Maintenance Services

Scheduled maintenance services shall be performed annually. The scheduled maintenance service shall include the following:

1. Visual inspection of the static scale system.
2. Calibration of the scale.
3. Lubrication of load cells and bumpers.

4. Power washing of the scale deck and pit with 2500 psi minimum pressure washer and disposal of debris.
5. Parts, labor and shipping.
6. Mobilization and traffic control necessary to perform the maintenance services.

A report shall accompany the scheduled maintenance service and shall be submitted to the department. The report shall include:

1. Calibration process and results.
2. Work completed.
3. Evaluation of the static scale system.
4. Other comments.

C.2 Emergency Repair Services

Emergency repair services shall be completed on an as-required basis. The maximum response time for emergency repair services shall not exceed 48 hours after written receipt of notice by email or fax. The vendor shall initiate on-site repairs within three calendar days of notification. Emergency repair services shall include all parts, labor, shipping, mobilization and traffic control necessary to perform the work.

D Measurement

The department will measure Static Scale System Warranty Maintenance, completed according to the contract and accepted, as a single complete lump sum unit of work.

E Payment

The department will pay for measured quantity at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.483	Static Scale System Warranty Maintenance	LS

Payment is full compensation for providing warranty and all maintenance services and emergency service for a period of five years and shall include all labor, tools, parts, shipping, mobilization, traffic control and incidentals necessary to perform the maintenance services.

114. Temporary Shoring Railroad, Item SPV.0165.701.

A Description

This special provision describes furnishing and installing temporary shoring at locations alongside railroad tracks as shown in the plan and according to the shoring design requirements.

B Materials

B.1 Shoring Design

Provide an effective shoring system capable of withstanding Coopers E-80 live load surcharge, and which is in compliance with OSHA and Federal Railroad Administration (FRA) requirements. For reference, use "Guidelines For Temporary Shoring" published by

Union Pacific Railroad (UPRR) and The Burlington Northern and Santa Fe Railway (BNSF). A copy of these guidelines may be obtained from the department at the Bureau of Railroads and Harbors, 4802 Sheboygan Avenue, Madison, Room 701. Where conflicts exist, the standard specifications, special provisions and plans shall supercede these guidelines.

Refer to standard spec 107.17(5) and (6) regarding the development and submittal of shop drawings, detailed plans, and computations for temporary construction near the UPR's tracks. Include in the submitted drawings and plans the proposed method of installation and removal of the shoring not included in the contract plans. In all calculations, take into consideration railroad surcharge loading and design the shoring to meet Coopers E-80 live loading.

C Construction

Provide, install and maintain adequate protection for people within the UPR's right-of-way. Cover, guard, and/or protect all excavations, holes, or trenches within the UPR's right-of-way when they are not being worked on. When leaving work site areas at night and over weekends, secure the areas and leave them in a condition that will ensure that railroad employees and other personnel, who may be working or passing through the area, are protected around excavations. Handrails, fences, or other barrier methods must meet OSHA, FRA, and UPRR requirements. Backfill all excavations as soon as possible.

Upon completion of the need for the temporary shoring, remove the shoring or cut-off the shoring at the adjacent ground level. Backfill the space that is excavated but not occupied by the new permanent construction according to standard spec 206.3.13.

D Measurement

The department will measure Temporary Shoring Railroad in area by the square foot, and the quantity to be paid for will be the sum of the areas of exposed faces of shoring constructed at the locations shown on the plans. Area will be determined from measurements taken in the plane of the exposed face of the shoring.

E Payment

The department will pay for the measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.701	Temporary Shoring Railroad	SF

Payment is full compensation for providing a verified design of the shoring; providing shop drawings and detailed plans; furnishing and hauling materials to each location; installing the shoring; maintaining the shoring as needed; removing the shoring; and for backfilling upon completion of the need for the shoring.

Temporary shoring not required by the plans and installed for the convenience of the contractor's operations shall be considered incidental to work under this contract and will not be measured and paid for under this item.

115. Longitudinal Grooving Bridge Deck, Item SPV.0165.750.

A Description

This special provision describes providing longitudinal deck grooves parallel to the centerline of the roadway prior to opening the bridge to traffic as directed by the engineer.

B Materials

Use a grooving machine containing blades mounted on a multi-blade arbor on a self-propelled machine built for grooving hardened concrete surfaces.

Use a grooving machine with a depth control device that detects variations in the deck surface and adjusts the cutting head height to maintain a specified depth of groove.

Equip the grooving machine with a guide device to control multi-pass alignment.

C Construction

Groove the pavement longitudinally without damaging the concrete deck surface.

Complete a longitudinal grooving operation that results in a uniformly grooved deck surface.

Cut grooves continuously across the deck width to within 18 inches of the barrier rail, curb line, or median divider. If metal floor drains extend more than 18 inches from the barrier rail, curb line, or median divider, all grooves on the bridge deck surface are to end within 6 inches of the floor drain perimeter.

At skewed metal edged expansion joints in the bridge deck surface, end all grooves on the bridge deck surface within 6 inches of the joint leaving no ungrooved surface adjacent to each side of the joint greater than 6 inches in width on the deck side of the expansion joints.

Produce grooves that are continuous across construction joints or other joints in the concrete deck surface less than ½-inch wide.

Construct longitudinal grooves with the following criteria:

Width (In)	Depth (In)	Spacing C-C (In)	Width Tolerance (In)	Depth Tolerance (In)	Spacing Tolerance (In)
1/8	3/16	3/4	0 to 1/16	± 1/16	± 1/16

Collect, remove and dispose of solid material residue and liquid waste resulting from grooving operations by vacuuming in a manner satisfactory to the engineer.

D Measurement

The department will not measure Longitudinal Grooving Bridge Deck. The department will use pay plan quantity according to standard spec 109.1.1.2.

E Payment

The department will pay for plan quantities according to standard spec 109.1.1.2 at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.750	Longitudinal Grooving Bridge Deck	SF

Payment is full compensation for providing the required machinery and operators; for grooving, for collecting, removing and properly disposing of all waste materials.
(1/5/2017)

116. Roadside Infiltration Ditch Compost, Item SPV.0180.002.

A Description

This special provision describes providing and placing roadside infiltration ditch compost as shown on the plans and as hereinafter provided.

B Materials

Provide compost that meets the following requirements:

1. Is a well-decomposed, stable, weed-free, organic, commercially manufactured material resulting from the biological degradation and transformation of plant or animal-derived materials under controlled conditions designed to promote aerobic decomposition.
2. Is mature with regard to its suitability for serving as an erosion control Best Management Practice (BMP) as defined in the table below.
3. Is stable with regard to oxygen consumption and carbon dioxide generation.
4. Does not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth.
5. Does not possess objectionable odors.
6. Has a moisture content with no visible free water or dust produced when handling the material.

Compost feedstock may include, but is not limited to, yard waste, clean chipped wood, farm crop residue, farm animal manure, or vegetable food waste. Do not use materials that have been treated with chemical preservatives as a compost feedstock or as wood chips.

Test according to the United States Composting Council's “Test Methods for Examining of Composting and Compost (TMECC)”. Provide compost with the United States Composting Council's Seal of Testing Assurance Program (STA) certification and STA product label. The compost producer must be a participant in the United States Composting Council's Seal of Testing Assurance program.

Provide quality control documentation that includes the following:

1. The compost technical data sheet with the feedstock by percentage in the final compost product.
2. A certification that the compost meets federal and state health and safety regulations.
3. A copy of the producer's STA certification.
4. A certified report of tests performed by an STA-certified lab, verifying that the compost meets the requirements in the table below.

Compost must comply with the following:

PROPERTY	TEST METHOD	REQUIREMENT
Particle Size	*TMECC 02.02-B Sample Sieving for Aggregate Size Classification % Dry Weight Basis	100% Passing, 3 inch 90 – 100% Passing, 1 inch 65 – 100% Passing, ¾ in 0 – 75% Passing, ¼ inch Maximum length 6 inches
pH	*TMECC 04.11-A Elastometric pH 1:5 Slurry Method pH Units	6.0-8.0
Soluble Salts	*TMECC 04.10-A Electrical Conductivity 1:5 Slurry Method dS/m (mmhoscm)	Below 5.0
Moisture Content	*TMECC 03.09-A Total Solids and Moisture at 70+/- 5 deg C % Wet Weight Basis	35-50
Organic Matter Content	*TMECC 05.07-A Loss-On-Ignition Organic Matter Method (LOI) % Dry Weight Basis	Minimum 40% Max 60% ash content
Maturity	*TMECC 05.05-A Germination and Vigor "Germination and Root Elongation" Seed Emergence Seedling Vigor % Relative to Positive Control	80 or Above
Physical Contaminants	*TMECC 02.02-C Man Made Inert Removal and Classification: Plastic, Glass and Metal %>4mm fraction, dry mass (weight) basis	Less than 1%
Pathogens	Shall meet Class A requirements for pathogens as specified in NR 204.07(6)(a)	Pass
Chemical Contaminants	Shall meet pollutant concentrations as specified in NR 204.07(5)(c)	Pass
Carbon to Nitrogen Ratio	C:N	10:1 – 20:1

*TMECC refers to "Test Methods for the Examination of Composting and Compost," published by the United States Department of Agriculture and the United States Compost Council (USCC).

Immediately remove from the project, compost not conforming to the above requirements or taken from a source other than those tested, and replace the compost at no cost to the department.

The engineer reserves the right to sample compost at the jobsite.

C Construction

C.1 Construction Site Stabilization

Prevent construction site runoff from disturbed areas from entering and contaminating the roadside infiltration ditch.

Divert runoff from pervious areas away from the infiltration ditch until the pervious areas have undergone final stabilization. Include how this diversion shall be accomplished as part of the Erosion Control Implementation Plan (ECIP) submittal.

Final stabilization is the condition achieved on pervious areas when uniform perennial vegetative cover has been established with a density of at least 70 percent.

If runoff from disturbed areas enters and contaminates the roadside infiltration ditch, restore the affected areas to their condition prior to the runoff contamination at no additional cost to the department.

C.2 Suitable Weather

Suspend roadside infiltration ditch construction operations during periods of rainfall or snowmelt. Suspend roadside infiltration ditch construction if ponded water is present or if residual soil moisture contributes significantly to the potential for soil smearing, clumping or other forms of compaction.

C.3 Preparation, Placement and Settling of Roadside Infiltration Ditch Compost

As detailed in the plans, excavate the roadside infiltration ditch area to a depth of 4 inches. Excavation of the roadside infiltration ditch area is paid for separately under bid item Excavation Common. Within the same calendar day of excavation, place 4 inches of roadside infiltration ditch compost.

Rototill the 4-inches of roadside infiltration ditch compost into the existing sand and gravel strata to an elevation approximately 1-foot below the proposed elevation of the roadside infiltration ditch.

Methods to induce mild settling of the roadside infiltration ditch compost layer, such as lightly tamping, may be used to prepare a stable planting medium and to stabilize the ponding depth. Vibrating-style plate compactors or other vibratory compactors are not allowed to induce settling.

C.4 Compaction Avoidance
During the roadside infiltration ditch construction, cordon off the area dedicated to the roadside infiltration ditch to prevent access by equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires. Acceptable equipment for constructing the infiltration ditch includes light equipment with turf type tires and/or marsh equipment or wide-track loaders.

During placement of the roadside infiltration ditch compost, avoid compaction beyond that allowed in section C.3 "Placement and Settling of Roadside Infiltration Ditch Compost."

Avoid smearing during the placement of the roadside infiltration ditch compost of the previously placed roadside infiltration ditch granular backfill sand layer and the roadside infiltration ditch compost layer.

C.5 Compaction Remediation
If compaction occurs, beyond that allowed in section C.3 "Placement and Settling of Roadside Infiltration Ditch Compost", re-fracture the soil to a depth of at least 12 inches. If smearing occurs, correct the smeared areas of the interface by raking or rototilling. Restore compacted or smeared areas at no additional cost to the department.

D Measurement
The department will measure Roadside Infiltration Ditch Compost by the square yard, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.002	Roadside Infiltration Ditch Compost	SY

Payment is full compensation for providing, stockpiling, loading, hauling, placing, and rototilling the material; and for providing necessary protection from construction site stormwater runoff.

117. Concrete Truck Apron 8-Inch, Item SPV.0180.005.

A Description
This special provision describes furnishing and installing a Concrete Truck Apron 8-Inch as shown on the plans, according to standard spec 416, 405 and as hereinafter provided.

B Materials
All materials shall be according to standard spec 416 and 405.

C Construction
All materials shall be according to standard spec 416 and 405.

D Measurement
The department will measure Concrete Truck Apron 8-Inch by the square yard, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.005	Concrete Truck Apron 8-Inch	SY

Payment is full compensation for furnishing and installing the cover plate.

118. Emulsified Asphalt Median Treatment, Item SPV.0180.010.

A Description
This special provision describes paving median areas between concrete barrier. Place the material at the locations and to the elevations, lines, grades, depth, and cross sections indicated on the plans and directed by the engineer.

B Materials
Furnish materials according to the pertinent requirements of standard spec 604.2 for slope paving crushed aggregate.

C Construction
Perform work according to the pertinent requirements of standard spec 604.3.

Supplement standard spec 604.3.2 to include the following:

Construct to a minimum depth of 6 inches.

D Measurement
The department will measure Emulsified Asphalt Median Treatment by the square yard of work, acceptably completed.

E Payment
The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.010	Emulsified Asphalt Median Treatment	SY

Payment is full compensation for furnishing and placing emulsified asphalt median treatment.
(5/7/2013)

119. Excavation, Hauling, and Disposal of Contaminated Soil, Item SPV.0195.740.

A Description

A.1 General

This special provision describes excavating, loading, hauling, and disposing of contaminated soil at a DNR approved landfill. The closest DNR approved landfills are:

Waste Management Madison Prairie Landfill
6002 Nelson Road
Sun Prairie, WI 53590
(608) 837-9031

Janesville City Landfill
225 Black Ridge Road
Janesville, WI 53545
(608) 755-3110

Advanced Disposal Services Mallard Ridge Landfill
W8470 State Road 11
Delevan, WI 53115
(262) 724-3257

Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

A.2 Notice to contractor

The department has completed testing for soil contamination for similar creosote bridge timber piles. Testing indicated that creosote-contaminated soil is potentially present within five feet of the creosote timbers. If encountered, contaminated soil maybe suitable for reuse as backfill on the project or disposed at a DNR approved landfill. In order to determine the proper waste characterization, provide for the temporary stockpiling of excavated soils adjacent the creosote timbers, or complete test pits to provide the environmental consultant soil samples from immediately adjacent the creosote timbers. The environmental consultant will advise the contractor within five business days of the disposal requirements.

A.3 Coordination

Coordinate work under this contract with the environmental consultant retained by the department:

Consultant:	TRC Environmental Corporation
Contact:	Mr. Dan Haak
Address:	708 Heartland Trail, Suite 3000, Madison, WI 53717
Phone:	(608) 826-3628
Fax:	(608) 826-3941
E-mail:	dhaak@trcsolutions.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on visual observations and field screening of soil that is excavated;

2. Identifying contaminated soils to be hauled to the DNR approved landfill;

3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and

4. Obtaining the necessary approvals for disposal of contaminated soil from the DNR approved landfill.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Identify the DNR approved landfill that will be used for disposal of contaminated soils, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated soils from the landfill.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed. Do not transport contaminated soil offsite without prior approval from the environmental consultant.

A.4 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR's concurrence letter is on file at the Wisconsin Department of Transportation. For further information

regarding the investigations, including waste characterization within the project limits, contact Jennifer Grimes with the department at (608) 844-1147.

A.5 Health and Safety Requirements
Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter soil contaminated with creosote or other petroleum related products. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

Disposal of contaminated soil at the landfill facility is subject to the facility's safety policies, which include as a minimum:

1. No smoking is allowed on-site.
2. Maximum speed limit of 15 mph on access roads and 5 mph while in active area.
3. All persons entering the active area must wear the following personal protective equipment: hard hats, high visibility clothing, steel toed work boots, safety glasses, and seat belts.
4. Minimum requirement for spacing is as follows:
    a. A minimum 15 foot Safety Zone is required between landfill equipment and all personnel at all times.
    b. Do not back up directly behind the compactor or dozer.
    c. Trucks must yield the right-of-way to landfill equipment.
    d. 15 feet required between trucks.
5. Only the driver can exit the truck and must stay within 4 feet of the truck. Use of Spotter is prohibited. Helper (if any), must remain in vehicle while unloading.
6. Tailgates of all vehicles may only be opened while in the active area and must be closed prior to exiting the active area.
7. Cleaning out vehicles must be done in designated area, not in the active area. Vehicles must be properly locked out / tagged out according to OSHA during the clean out process.
8. No scavenging is allowed.
9. Horseplay is prohibited.

Violation of the landfill's safety policy will result a verbal or written warning explaining this policy and may result in the loss of dumping privileges.

Immediately report all accidents and injuries at the landfill to landfill management.

B (Vacant)

C Construction
Supplement standard spec 205.3 with the following:

The environmental consultant will periodically examine excavated soil during excavations in the areas of soil contamination from creosote treated timber bridge pilings within the construction limits.

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated and to ensure that excavations do not extend beyond the minimum required to construct utilities and highway improvements unless expressly directed to do so by the engineer.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite disposal at a DNR approved landfill or can be beneficially re-used on-site. The environmental consultant will evaluate excavated soil based on field screening results and visual observations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 10 cubic yards excavated.

On the basis of the results of such field-screening, the material will be designated for disposal as follows:

- Excavation Common consisting of clean soil and/or clean construction and demolition fill (such as clean soil, boulders, concrete, reinforced concrete, broken pavement, bricks, building stone, and unpainted or untreated wood), which under NR 500.08 are exempt materials, or
- Low-level contaminated material for reuse as fill within the construction limits, or
- Contaminated soil for off-site disposal at the DNR approved landfill, or
- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal.

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 200 cubic yards of contaminated soil on-site that require additional characterization. Construct and maintain a temporary stockpile of the material according to NR 718.05(3), including, but not limited to, placement of the contaminated soil/fill material on an impervious surface and covering the stockpile with impervious material to prevent infiltration of precipitation. The department's environmental consultant will collect representative samples of the stockpiled material, laboratory-analyze the samples, and advise the contractor, within 5 business days of the construction of the stockpile, of disposal requirements. The stockpiled material shall be disposed either at the DNR approved disposal facility by the contractor or, if characterized as hazardous waste, by the department. As an alternative to temporarily stockpiling contaminated soil/fill material that requires additional characterization, the contractor has the option of suspending

excavation in those areas where such soil is encountered until such time as characterization is completed.

Directly load and haul soils designated by the environmental consultant for off-site disposal to the DNR approved landfill. Use loading and hauling practices that are appropriate to prevent any spills or releases of petroleum-contaminated soils or residues. Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids. Verify that the vehicles used to transport contaminated material are licensed for such activity according to applicable state and federal regulations.

When material is encountered outside the above-identified limits of known contamination that appears to have been impacted with petroleum or chemical products, or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, suspend excavation in that area and notify the engineer and the environmental consultant.

Groundwater may be present within the construction limits. Water generated during dewatering operations (if necessary) is expected to be permitted to discharge to the surface except in the contaminated areas. If dewatering of perched groundwater or stormwater is required, allow stormwater to settle for 24 hours after a rain event, after which the water shall be managed as uncontaminated dewatering, unless the environmental consultant has evidence that the water will require treatment and/or off-site disposal.

Contaminated groundwater generated from dewatering activities within the contaminated areas may exceed the surface water discharge limits for petroleum compounds specified in the DNR's "General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System" for "Contaminated Groundwater from Remedial Action Operations" (WPDES Permit No. WI-0046566-5), Table 3.1.

Employ construction methods and techniques in a manner that will minimize the need for dewatering, and if dewatering is required, minimize the volume of water generated. Take measures to limit groundwater, surface water, and precipitation from entering and exiting excavations in the areas of contamination. Such measures, which may include berming, ditching, or other means, shall be maintained until construction of utilities in the areas of contamination are complete.

Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities. Notify the engineer of any dewatering activities, and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statues, judiciary decisions, and regulations of the State of Wisconsin.

D Measurement

The department will measure Excavation, Hauling, and Disposal of Contaminated Soil in tons of contaminated soil, accepted by the DNR approved disposal facility as documented by weight tickets generated by the disposal facility.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.740	Excavation, Hauling, and Disposal of Contaminated Soil	TON

Payment is full compensation for excavating, segregating, loading, hauling, and disposal of contaminated soil; tipping fees including applicable taxes and surcharges; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and for dewatering of soils prior to transport, if necessary.

ADDITIONAL SPECIAL PROVISION 1 (ASP 1)
FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS)
PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including "pipeline" activities. The core programs includes: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

TrANS is an employment program originally established in 1995 in Southeastern Wisconsin. Currently TrANS has expanded to include TrANS program locations to serve contractors in Southeast (Milwaukee and surrounding counties), Southcentral (Dane County and surrounding counties including Rock County), and most Northeastern Wisconsin counties from locations in Keshena, Rhinelander and surrounding far Northern areas. TrANS attempts to meet contractor's needs in other geographic locations as possible. It is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities and non-minorities as laborers and apprentices in the highway skilled trades. These candidate preparation and contractor coordination services are provided by community based organizations. For a list of the TrANS Coordinators contact the Disadvantaged Business Enterprise Office at (414) 438-4583 in Milwaukee or (608) 266-6961 in Madison. These services are provided to you at no cost.

I. BASIC CONCEPTS

Training reimbursements to employing contractors for new placements, rehires or promotions to apprentice of TrANS Program graduates will be made as follows:

1) **On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate.** At the rate of $5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.

   Eligibility and Duration: To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.

   Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 15 *(number)* TrANS Graduate(s) be utilized on this contract.

2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of $5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).

Eligibility and Duration: To the employing contractor, for the length of time the TrANS graduate is in apprentice status.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __6__ *(number)* TrANS Apprentice(s) be utilized on this contract.

3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.

4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.

5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

I. RATIONALE AND SPECIAL NOTE

The $5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the $5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

NOTE: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

II. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-

OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

IV. *TRANS TRAINING*

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

V. APPRENTICESHIP TRAINING

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

(1) To increase the overall effectiveness of the State highway agencies' approved training programs.
(2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b*)* (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a*)* (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 3

DISADVANTAGED BUSINESS ENTERPRISE [DBE] PROGRAM IMPLEMENTATION

1. Description

a. The federal DBE program requirements outlined in the Code of Federal Regulations at 49 CFR Part 26 apply to this Wisconsin Department of Transportation contract. WisDOT is a recipient of federal funds and this contract includes federal funds. United States Department of Transportation Federal DBE Program requires the following provisions:

(1) Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE regulations will be considered a material breach of contract. This is non-negotiable. If a contractor fails to carry out the DBE program and Title VI nondiscrimination requirements of its contracts, the following sanctions will be assessed depending upon the facts, reasoning, severity and remedial efforts of the contractor: termination of contract, withholding payment, assessment of monetary sanctions, assessment of liquidated damages and/or suspension/debarment proceedings that may result in the disqualification of the contractor from bidding for a designated period of time.

(2) The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains the federal fund recipient's [DOT] written consent. Unless [WisDOT] consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

b. The Wisconsin Department of Transportation [WisDOT] is committed to the compliant administration of the DBE Program. Each WisDOT Secretary affirms this commitment with his/her signed assurance. http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/policy-statement.pdf

(1) The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts. Under the contract, the contractor agrees to provide the assistance to participating DBE's in the following areas:
   i. Produce accurate and complete quotes.
   ii. Understand highway plans applicable to their work.
   iii. Understand specifications and contract requirements applicable to their work.
   iv. Understand contracting reporting requirements.

(2) Wisconsin DOT identifies the assigned DBE goal in its contract advertisements and posts the contract DBE goal on the cover of the bidding proposal. The contractor can meet the assigned, specified contract DBE goal by subcontracting work to a DBE or by procuring services or materials from a DBE. The department calculates the DBE participation as the dollar value of DBE participation included in the bid expressed as a percentage of the total contract bid amount.

(3) For more comprehensive information on the disadvantaged business program, visit the department's Civil Rights and Compliance Section website at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx

2. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

a. **Bid Percentage:** The DBE percentage indicated in the bidding proposal at the time of bid.

b. **DBE:** A small business certified as disadvantaged business enterprise (DBE) under the federal DBE program and included on the Wisconsin UCP DBE Directory deemed ready, willing and able.

c. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.

d. **Manufacturer:** A firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract.

e. **Supplier:** A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment required under the contract are bought, kept in stock, and regularly sold or leased to the public.

f. **Voluntary Achievement:** The amount of DBE participation achieved and reported in the contract in excess of the assigned goal.

3. DBE Percentage Required at Bid Submission

Indicate the bid percentage (i.e. 0% through 100%) of DBE participation on the completed bidding proposal. For electronic submittals, show the percentage in the miscellaneous data folder, Item 3, DBE Percent. For paper submittals, show the percentage on the sheet included after the schedule of items. By submission of the bid, the bidder contractually commits to DBE participation at or above the bid percentage, or certifies that they have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, and that the bid percentage is reflective of these good faith efforts. The bid percentage should demonstrate the efforts of the prime contractor prior to bid. If the bidder does not indicate the bid percentage of DBE participation on the completed bidding proposal, the department will consider the bid irregular and may reject the bid.

4. WisDOT Interpretation of Federal DBE Program Provision

Prime contractors must utilize the specific DBEs listed to perform the work and/or supply the materials for which each is listed on the Commitment to Subcontract to DBE Form [DT1506] and approved by WisDOT's DBE office to execute its contract. The approved Commitment to Subcontract to DBE Form [DT1506] becomes a contract document/record.

a. **Department's DBE Evaluation Process**
WisDOT evaluates DBE using the Commitment to Subcontract to DBE, payments to subcontractors and contract documentation. The prime contractor shall list the specific DBE certified firms and items of work s/he intends to use toward the fulfillment of the assigned DBE contract goal. The prime contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved Form DT1506.

b. **Documentation Submittal**
The contractor is to identify, by name, the DBE firms whose utilization is intended to satisfy this provision, the items of work of the DBE subcontract or supply agreement and the dollar value of those items of work by completing the Commitment to Subcontract to DBE Form [DT1506]. Effective January 1, 2017, the contractor will be required to submit the documentation within 5 business days after bid opening. All necessary supporting documentation including Attachment 'A' forms and/or Good Faith Efforts Form

[DT1202] must be submitted no later than 2 business days from contractor's initial submission of the DT 1506. The contractor must provide a signed Attachment 'A' form to the DBE office within the time limit in order to receive authorization for contract execution; the DBE office reserves the right accept alternate documentation in lieu of the signed form in extenuating circumstances. Documentation must be submitted to the DBE Office by email at DBE_Alert@dot.wi.gov (DBE_Alert@dot.wi.gov) or by postal mail ATTN: DBE Office, PO Box 7965, Madison, WI 53707-7965.

(1) **Bidder Meets DBE Goal**
If the bidder indicates that the contract DBE goal is met, after award and before execution, the department will evaluate the Commitment to Subcontract to DBE Form DT1506 and attachment A(s) to verify the actual DBE percentage calculation. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

(2) **Bidder Does Not Meet DBE Goal**

i. If the bidder indicates a bid percentage on the Commitment to Subcontract to DBE Form [DT1506] that does not meet the contract DBE goal, the bidder must submit a Good Faith Efforts Form [DT1202] and supporting documentation. After award and before execution, the department will evaluate the bidder's DBE commitment and consider the bidder's good faith efforts submission.

ii. The department will evaluate the bidder's good faith effort request and notify the bidder of one of the following:

(a) If the department grants a good faith efforts, the bid is eligible for contract execution with respect to DBE commitment.

(b) If the department rejects the good faith efforts request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith efforts request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

c. **Bidder Fails to Submit Documentation**
If the contractor fails to furnish the Commitment to Subcontract to DBE Form [DT1506] within the specified time, the department may cancel the award. Delay in fulfilling this requirement is not a cause for extension of the contract time and shall not be used as a tool to delay execution.

5. Department's Criteria for Good Faith Effort

Appendix A of 49 CFR Part 26, is the guiding regulation concerning good faith efforts. However, the federal regulations do not explicitly define "good faith" but states that bidder must actively and aggressively attempt to meet the goal. The federal regulations are general and do not include every factor or effort that can be considered. As a result, each state must establish its own processes and consider the factors established in its own practices to create a process for making a determination of adequate good faith. WisDOT evaluates good faith on a contract basis just as each contract award is evaluated individually.

The department will only approve a contractor's good faith efforts if the bidder has made the effort, given the relevant circumstances under the contract that a bidder actively and aggressively seeking to meet the goal would make. The department will evaluate the bidder's good faith effort to determine whether a good faith efforts will be granted. The bidder must demonstrate, on the DT1202 that they have aggressively solicited DBE participation in an attempt to meet the contract DBE goal and attaining the stated DBE goal is not feasible.

a. The department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.

b. Prime Contractors should:

(1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use the Civil Rights & Compliance System [CRCS] and related WisDOT- approved DBE outreach tools, including the Bid Express Small Business Network, to foster DBE participation on all applicable contracts.

(2) Prime contractors may request assistance with DBE outreach and follow-up by contacting the department's DBE Support Services Office by phone or email request at least 14 days prior to the bid letting date. Requesting assistance with outreach is not a decisive factor in the review Good faith effort evaluation. Phone numbers are 414-438-4584 and/or 414-659-0487; Fax: 414-438-5392; E-mail: DOTDBESupportServices@dot.wi.gov.

(3) Request quotes by identifying potential items to subcontract and solicit. Prime contractors are strongly encouraged to include in their initial contacts a single page including a detailed list of items for which they are accepting quotes, by project, within a letting. *See attached sample entitled "Sample Contractor Solicitation Letter" in Appendix A*. Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, as required by federal rules. In some cases, it might be appropriate to use DBE's to do work in a prime contractor's area of specialization.

i. Solicit quotes from certified DBE firms who match 'possible items to subcontract' using all reasonable and available means. Additionally, forward copies of solicitations highlighting the work areas for which you are seeking quotes to DOTDBESupportServices@dot.wi.gov.

ii. SBN is the preferred outreach tool. https://www.bidx.com/wi/main. Other acceptable means include postal mail, email, fax, phone call.

(a) Primes must ask DBE firms for a response in their solicitations. See *Sample Contractors Solicitation Letter* in Appendix. This letter can be included as an attachment to the SBN sub-quote request.

(b) Solicit quotes at least 10 calendar days prior to the letting date, at least two Fridays before the letting, to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking if they need help organizing their quote, assistance confirming equipment needs, or other assistance supporting their submission of a competitive quote for their services.

(c) Second solicitation should take place within 5 calendar days. Email and SBN are the preferred delivery of the follow-up solicitation.

iii. Upon request, provide interested DBE firms with adequate information about plans, specifications and the requirements of the contract by letter, information session, email, phone call and/or referral.

iv. When potential exists, the contractor should advise interested DBE firms on how to obtain bonding, line of credit or insurance if requested.

v. Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:

(a) Email to all prospective DBE firms in relevant work areas.

(b) Phone call log to DBE firms who express interest via written response or call.

(c) Fax/letter confirmation

(d) Signed copy of Bid Express SBN Record of Subcontractor Outreach Effort.

c. Evaluate DBE quotes Documentation is critical if a prime does not utilize the DBE firm's quote for any reason.

(1) Evaluate DBE firm's capability to perform 'possible items to subcontract' using legitimate reasons, including but not limited to, ***a discussion with the DBE firm*** regarding its capabilities prior to the bid letting. If lack of capacity is your reason for not utilizing the DBE quote, you are required to contact the DBE by phone and email regarding their ability to perform the work indicated in the UCP directory listed as their work area by NAICS code. Only the work area and/or NAICS code listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.

(2) In striving to meet an assigned DBE contract goal, prime contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.

(3) **Special Circumstance** - Evaluation of DBE quotes with tied bid items. “Tied quotes are the condition in which a subcontractor submits quotes including multiple areas of expertise across multiple work areas noting that the items and price are tied. Typically this type of quoting represents a cost saving to the prime but is not clearly stated as a discount; tied quotes are usually presented as ‘all or none’ quote to the prime.” When non-DBE subcontractors submit tied bid items in their quotes to the prime, the DBE firms’ quote may seem not competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples.

i. Compare bid items common to both quotes, noting the reasonableness in the price comparison.
ii. Review quotes from other firms for the bid items not quoted by the DBE firm to see if combining both can provide the same competitive advantage that the tied bid items offered.

d. Immediately after notification of contract award, the prime submits all **'Commitment to Subcontract'** forms to the DBE Office. Prime contractor has 5 days to submit the completed form for the DBE firms it intends to use on the contract for DBE credit. If the goal is not met in full, the prime contractor must provide the following information along with WisDOT form DT1202: Certificate of Good Faith Efforts.

(1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact.
(2) A description of information provided to the DBE's regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE.
(3) Photocopies or electronic copies of all written solicitations to DBE's. A printed copy of SBN solicitation is acceptable.
(4) Documentation of each quote received from a DBE and, if rejected, the reason for that rejection.
(5) Bidder attendance at any pre-solicitation or pre-bid meetings the department held to inform DBE's of participation opportunities available on the project.

The prime contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved Commitment to Subcontract to DBE Form [DT1506]. If the prime contractor utilizes another contractor, including the use of its own workforce, to perform the work assigned to a DBE on the approved DT1506, the prime contractor will not be entitled to payment for that work. Any changes to DBE after the approval of the DT1506 must be reviewed and approved by the DBE office prior to the change.

6. Use of Joint Checks

The *use of joint checks is allowable if it is a commonly recognized business practice in* the material industry. A joint check is defined as a two-party check between a DBE, a prime contractor and the regular dealer of materials supplier who is neither the prime nor an affiliate of the prime. Typically, the prime contractor issues one check as payor to the DBE subcontractor and to the supplier jointly (to guarantee payment to the supplier) as payment for the material/supplies used by the DBE in cases where the prime has submitted the DBE and material for DBE credit. The DBE subcontractor gains the opportunity to establish a direct contracting relationship with the supplier to potentially facilitate a business rapport that results in a line of credit or increased partnering opportunities.

The cost of material and supplies purchased by the DBE is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE must be responsible for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and "paying for the material itself." See 49 CFR 26.55(c)(1).

The approval to use joint checks constitutes a commitment to provide further information to WisDOT, upon request by staff. WisDOT will allow the use of joint checks when the following conditions are met:

a. The Prime must request permission to use joint checks from the DBE Office by submitting the Application to Use Joint Checks.
   (1) Request should be made when the DBE Commitment form or Request to Sublet is submitted; the request will not be considered if submitted after the DBE Subcontractor starts its work.
   (2) Approval/Permission must be granted prior to the issuance of any joint checks.
   (3) The payment schedule for the supplier must be presented to the DBE office before the first check is issued.
   (4) The joint check for supplies must be strictly for the cost of supplies.

b. DBE subcontractor is responsible to furnish and/or install the material/work item. The DBE subcontractor shall not be an 'extra participant' in the transaction; the DBE's role in the transaction cannot be limited solely to signing the check(s) to release payment to the material supplier. At a minimum, the DBE subcontractor's tasks should include the following.
   (1) The DBE subcontractor (not the prime/payor) negotiates the quantities, price and delivery of materials;
   (2) The DBE subcontractor consents to sign/release the check to the supplier by signing the Application to Use Joint Checks after establishing the conditions and documentation of payment within the subcontract terms or in a separate written document.

c. The Prime contractor/payor acts solely as a guarantor,
   (1) The prime agrees to furnish the check used for the payment of materials/supplies under the contract.
   (2) The prime contractor/payor cannot require the subcontractor to use a specific supplier or the prime contractors negotiated unit price.

7. Bidder's Appeal Process

a. A bidder can appeal the department's decision to deny the bidder's good faith effort submission. The bidder must provide written documentation refuting the specific reasons for rejection as stated in the department's rejection notice. The bidder may meet in person with the department if so requested. Failure to appeal within 7 calendar days after receiving the department's written denial notice of a good faith effort evaluation constitutes a forfeiture of the bidder's right of appeal. A contract cannot be executed without documentation that the DBE provisions have been fulfilled.

b. The department will appoint a representative, who did not participate in the original determination, to assess the bidder's appeal. The department will issue a written decision within 5 calendar days after the bidder presents all written and oral testimony. In that written decision, the department will explain the basis for finding that the bidder did or did not meet the contract DBE goal or make an adequate good faith effort to meet the contract DBE goal. The department's decision is final. If the department finds that the bidder did not meet the contract DBE goal or did not make adequate efforts to meet the DBE goal, the department may declare the bid ineligible for execution.

8. Department's Criteria for DBE Participation

Directory of DBE firms

a. The only resource for DBE certified firms certified in the state of Wisconsin is the Wisconsin Unified Certification Program [UCP] DBE List. Wisconsin Department of Transportation maintains a current list of certified DBE firms titled Wisconsin UCP DBE Directory on the website at:
   http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx

b. The DBE office is also available to assist at 414-438-4583 or 608-267-3849.

9. Counting DBE Participation

Assessing DBE Work

a. The department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the unified certification program agencies. If a firm becomes DBE certified before entering into a subcontract, the department may consider that DBE usage towards the contract goal. The department only counts the value of the work a DBE actually performs towards the DBE goal. The department assesses the DBE work as follows:

b. The department counts work performed by the DBE's own resources. The department includes the cost of materials and supplies the DBE obtains for the work. The department also includes the cost of equipment the DBE leases for the work. The department will not include the cost of materials, supplies, or equipment the DBE purchases or leases from the prime contractor or its affiliate, except the department will count non-project specific leases the DBE has in place before the work is advertised.

c. The department counts fees and commissions the DBE charges for providing a bona fide professional, technical, consultant, or managerial services. The department also counts fees and commissions the DBE charges for providing bonds or insurance. The department will only count costs the engineer deems reasonable based on experience or prevailing market rates.

d. If a DBE subcontracts work, the department counts the value of the subcontracted work only if the DBE's subcontractor is also a DBE.

e. The contractor shall maintain records and may be required to furnish periodic reports documenting its performance under this item.

f. It is the prime contractor’s responsibility to determine whether the work that is committed and/or contracted to a DBE certified firm can be counted for DBE credit by referencing the work type and NAICS code listed for the DBE firm on the Wisconsin UCP DBE Directory.

g. It is the prime contractor’s responsibility to assess the DBE firm’s ability to perform the work for which s/he is committing/contracting the DBE to do. Note that the department encourages the prime contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.

10. Commercially Useful Function

a. Commercially useful function is evaluated after the contract has been executed, while the DBE certified firm is performing its work items. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved.

b. The department uses Form DT1011: DBE Commercially Useful Function Review and Certification to evaluate whether the DBE is performing a commercially useful function. WisDOT counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.

c. A DBE is performing a commercially useful function if the following conditions are met:
   (1) For contract work, the DBE is responsible for executing a distinct portion of the contract work and it is carrying out its responsibilities by actually performing, managing, and supervising that work.
   (2) For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

11. Credit Evaluation for Trucking

All bidders are expected to adhere to the department's current trucking policy posted on the HCCI website at http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf

12. Credit Evaluation for Manufacturers, Suppliers, Brokers

The department will calculate the amount of DBE credit awarded to a prime using a DBE firm for the provisions of materials and supplies on a contract-by-contract basis. The department will count the material and supplies that a DBE provides under the contract for DBE credit based on whether the DBE is a manufacturer, supplier or broker. Generally, DBE crediting measures and evaluates the DBE owner's role, responsibility and contribution to the transaction: maximum DBE credit when the DBE manufactures materials or supplies; DBE credit decreases when the DBE solely supplies material and minimal credit is allotted when the DBE's role is administrative or transactional.

It is the bidder's responsibility to find out if the DBE is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506.

a. Manufacturers
   (1) A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
   (2) If the materials or supplies are obtained from a DBE manufacturer, count **100%** percent of the cost of the materials or supplies toward DBE goals.

b. Regular Dealers of Material and/or Supplies
   (1) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.
   (2) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.
   (3) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:
      i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
      ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.

c. Brokers, Transaction Expediters, Packagers, Manufacturers Representatives
   (1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit; however, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives or other persons who arrange or expedite transactions.
   (2) Brokerage fees have historically been calculated as **10%** of the purchase amount.
   (3) WisDOT may count the amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site.
   (4) The evaluation will review the contract need for the item/service, review the sub-contract or invoice for the item/service, compare the fees customarily allowed for similar services to determine whether they are reasonable.

When DBE suppliers are contracted, additional documentation must accompany the DT1506 and Attachment 'A' forms. An invoice or bill-of-sale that includes the company names of the bidder and the DBE supplier and documentation of the calculations used as the basis for the purchase agreement, subcontract or invoice. *WisDOT recognizes that the amount on the Attachment 'A' form may be more or less than the amount on the invoice*. Please respond to the following questions and submit with your DBE Commitment Form.

1. What is the product or material?
2. Is this item in the prime's inventory or was the item purchased when contract was awarded?
3. Which contract line items were referenced to develop this quote?
4. What is the amount of material or product used on the project?

13. Credit Evaluation for DBE Primes

Wisconsin DOT calculates DBE credit based on the amount and type of work performed by DBE certified firms. If the prime contractor is a DBE certified firm, the department will only count the work that DBE prime contractor performs with its own forces for DBE credit. We will also calculate DBE credit for the work performed by any other DBE certified subcontractor, DBE certified supplier, DBE certified manufacturer on that contract in that DBE's approved work areas/NAICS code. Crediting for manufacturers and suppliers is calculated consistent with paragraph 12 of this document and 49 CFR Part 26.

14. Joint Venture

If a DBE performs as a participant in a joint venture, the department will only count that portion of the total dollar value of the contract equal to that portion of the work that the DBE performs with its own forces for DBE credit.

15. Mentor Protégé

a. If a DBE performs as a participant in a mentor protégé agreement, the department will count for credit the portion of the work performed by the DBE protégé firm.

b. DBE credit will be evaluated and confirmed by the DBE Office for any contracts on which the mentor protégé team identifies itself to the DBE Office as a current participant of the Mentor Protégé Program.

c. Refer to WisDOT's Mentor Protégé guidelines for guidance on the number of contracts and amount of DBE credit that can be counted on any WisDOT project.

16. DBE Replacement or Termination

Contractual Requirement

The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from the Department's DBE Office. If the Department does not provide consent to replace or terminate a DBE firm, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

Contractor Considerations

a. A prime contractor cannot terminate and/or replace a DBE subcontractor listed on the approved Commitment to Subcontract to DBE Form [DT1506] without prior written consent from the DBE Office. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

b. If a prime contractor feels it is necessary to replace or terminate a DBE firm that has been approved for DBE credit toward its contract, s/he will be required to provide reasons and documentation to support why the prime cannot fulfill the contractual commitment that it made to the Department regarding the DBE utilization.

c. Prime contractor is required to make affirmative efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the assigned DBE contract goal.

d. In circumstances when a DBE subcontractor fails to complete its work on the contract for any reason or is terminated from a contract, the prime contractor is expected to make affirmative efforts to maintain its commitment to the assigned DBE goal.

e. The DBE firm should communicate with the prime contractor regarding its schedule and capacity in the context of the contract. If the DBE anticipates that it cannot fulfill its subcontract, s/he shall advise the prime contractor and suggest a DBE that may replace their services or provide written consent to be released from its subcontract.

(1) Before the prime contractor can request to terminate or substitute a DBE firm; s/he must:
   i. Make every effort to fulfill the DBE commitment by working with the listed DBE to ensure that they are fully knowledgeable of your expectations for successful performance on the contract. Document these efforts in writing.
   ii. If those efforts fail, provide written notice to the DBE subcontractor of your *intent to* request to terminate and/or replace the firm including the reason(s) you want to pursue this action.
   iii. Copy the DBE Office on all correspondence related to changing a DBE firm who has been approved for DBE credit on a contract including the preparation and coordination efforts with the DBE on the contract.
   iv. Clearly state the amount of time the DBE firm has to remedy and/or respond to your notice of intent to replace/terminate their firm from the contract. The DBE shall be allowed five days to respond, in writing. **EXCEPTION:** The prime contractor must provide a verifiable reason for a response period shorter than five days. For example a WisDOT project manager must verify that waiting 5 days for a DBE performing traffic control work to respond would affect the public safety.
   v. The DBE subcontractor must forward a written response to the prime contractor and copy the DBE Office. The written response must outline why it objects to the proposed termination of its subcontract and list the reasons that WisDOT should not approve the request for their firm to be replaced or removed from the contract.

The Request to Replace or Terminate a DBE

The prime contractor must provide a written request to replace or terminate a DBE firm that has been approved for DBE credit on a WisDOT contract. The written request can be an email or printed document delivered by email or fax; at minimum, the request must contain the following:

1. Contract ID number.
2. Wisconsin DOT Contract Project Manager name and contact information.
3. DBE name and work type and/or NAICS code.
4. Contract's progress schedule.
5. Reason(s) for requesting that the DBE be replaced or terminated.
6. Attach/include all communication with the DBE to deploy/address/resolve work completion,

WisDOT will review your request and any supporting documentation that you submit to evaluate whether the circumstance and the reasons constitute a good cause for replacing or terminating the DBE that was approved for DBE credit on that contract.

Examples of Good Causes to Replace a DBE according to the federal DBE program guidelines {49 CFR part 26.53}

- The listed DBE subcontractor fails or refuses to execute a written contract.
- The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor.
- The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements.
- The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness.
- The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law.
- You have determined that the listed DBE subcontractor is not a responsible contractor.
- The listed DBE subcontractor voluntarily withdraws from the project and provides to you written notice of its withdrawal.
- The listed DBE is ineligible to receive DBE credit for the type of work required.
- A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract.

Evaluation and Response to the Request
If WisDOT determines that your reasons comply with the good cause standards; the DBE office will send the prime contractor and the WisDOT project manager an email stating that we concur with the reasons and approve the replacement or termination.

If WisDOT determines that your reasons do not comply with the good cause standards of the federal DBE program, the DBE Office will send the prime contractor an email that includes *the requirement* to utilize the committed DBE, *remedial actions* to support the completion of the contractual commitment, a list of available WisDOT support services *and administrative remedies that may be invoked* for failure to comply with federal DBE guidelines for DBE replacement.

The Wisconsin Department of transportation contact for all actions related to replacing a DBE is the DBE Program Chief and/or the DBE Program Engineer which can be reached at DBE_Alert@dot.wi.gov or by calling 608-267-3849.

17. DBE Utilization beyond the approved DBE Commitment Form DT1506

If the Prime/subcontractor increases the scope of work for a participating DBE or adds a DBE subcontractor that was not on the approved Form DT1506 at any time after contract award, s/he should follow these steps so that the participation can be accurately credited toward the DBE goal.

a. Send an email to the DBE Engineer at DBE_Alert@dot.wi.gov describing the work to be performed by the new DBE including the proposed schedule or duration, DBE name and contact information. You may also call the DBE Engineer at 414-659-0487 to notify him of the change verbally.
If the scope change added work for a participating DBE; list the date and reason for the scope change.

b. Forward a complete, signed Attachment 'A' form to the DBE Office at DBE_Alert@dot.wi.gov. A complete Attachment A includes DBE contact information, signature, subcontract value and proper description of the work areas to be performed by the DBE.
The DBE office will confirm the DBE participation and revise the DT1506 based on the email/discussion and attach the new/revised Attachment A to the Contract record/documentation.

18. Contract Modifications

When additional opportunity is available by contract modifications, the Prime Contractor shall utilize DBE Subcontractors that were committed to equal work items, in the original contract.

19. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

APPENDIX A
Sample Contractor Solicitation Letter Page 1
This sample is provided as a guide not a requirement

GFW SAMPLE MEMORANDUM

TO:	DBE FIRMS
FROM:	POTENTIAL PRIME CONTRACTOR OR MAJOR SUBCONTRACTOR
SUBJECT:	**REQUEST FOR DBE QUOTES** **LET DATE & TIME**
DATE:	MONTH DAY YEAR
CC:	DBE OFFICE ENGINEER

Our company is considering bidding on the projects indicated on the next page, as a prime and/or a subcontractor for the Wisconsin Department of Transportation Month- date -year Letting. Page 2 lists the projects and work items that we may subcontract for this letting. We are interested in obtaining subcontractor quotes for these projects and work categories. Also note that we are willing to accept quotes in areas we may be planning to perform ourselves as required by federal rules.

Please review page 2, respond whether you plan to quote, highlight the projects and work items you are interested in performing and return it via fax or email within 3 days. Plans, specifications and addenda are available through WisDOT at the DBE Support Services office or at the Highway Construction Contract Information (HCCI) site at http://roadwaystandards.dot.wi.gov/hcci/

Your quote should include all of the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Page 2, with the indicated projects and items you plan to quote, should be used as a cover sheet for your quote.

Please make every effort to have your quotes into our office by time deadline the prior to the letting date. ***Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.*** We prefer quotes be sent via SBN but prime's alternatives are acceptable. Our office hours are include hours and days. Please call our office as soon as possible prior to the letting if you need information/clarification to prepare your quote at contact number.

If you wish to discuss or evaluate your quote in more detail, contact us after the contract is awarded. Status of the contract can be checked at WisDOT's HCCI site at http://roadwaystandards.dot.wi.gov/hcci/

All questions should be directed to:

Project Manager, John Doe,
Phone: (000) 123-4567
Email: Joe@joetheplumber.com
Fax: (000) 123- 4657

Sample Contractor Solicitation Letter Page 2

This sample is provided as a guide not a requirement

REQUEST FOR QUOTATION

Prime's Name: _____

Letting Date: _____

Project ID: _____

Please check all that apply

- ☐ Yes, we will be quoting on the projects and items listed below
- ☐ No, we are not interested in quoting on the letting or its items referenced below
- ☐ Please take our name off your monthly DBE contact list
- ☐ We have questions about quoting this letting. Please have someone contact me at this number

Prime Contractor 's Contact Person	DBE Contractor Contact Person
Phone:	Phone
Fax:	Fax
Email:	Email

Please circle the jobs and items you will be quoting below

Proposal No.	1	2	3	4	5	6	7
County							

WORK DESCRIPTION:

Clear and Grub	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

We prefer quotes be sent via SBN but prime's preferred alternatives are acceptable.

If there are further questions please direct them to the prime contractor's contact person at phone number.

APPENDIX B
BEST PRACTICES FOR PRIME CONTRACTOR & DBE SUBCONTRACTOR GOOD FAITH EFFORT

This list is not a set of requirements; it is a list of potential strategies

Primes

- Prime contractor open houses inviting DBE firms to see the bid "war room" or providing technical assistance.
- Participate in speed networking and mosaic exercises as arranged by DBE office.
- Host information sessions not directly associated with a bid letting.
- Participate in a formal mentor protégé or joint venture with a DBE firm.
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Facilitate a small group DBE 'training session' Clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications and communication methods.
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Quality of communication, not quantity creates the best results. Contractors should do as thorough a job as possible in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the 'apparent low bidder' list, and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation-related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs.
- Participate on advisory and mega-project committees.
- Sign up to receive the DBE Contracting Update.
- Consider membership in relevant industry or contractor organizations.
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the department are the only ways to get work.

APPENDIX C
Types of Efforts considered in determining GFE
This list represents concepts being assessed; analysis requires additional steps

1. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by WisDOT to inform DBEs of contracting and subcontracting opportunities.
2. Whether the contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively.
3. Whether the contractor followed up initial solicitations of interest by contacting DBEs to determine if the DBEs were interested; returned the phone calls of interested DBE firms.
4. Whether the contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goal.
5. Whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract.
6. Whether the contractor negotiated in good faith with interested DBEs, not rejected DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities.
7. Whether the contractor made efforts to assist interested DBEs in being more competitive.
8. Whether the contractor effectively used the services of available minority community organizations: minority contractors groups, local, state, and Federal minority business assistance offices, and other organizations that provide assistance to small businesses and DBE firms.
9. Whether Prime used CRCS to identify DBE who specialize in relevant work areas.
10. Whether the contractor used available resources including contacting the DBE office, using WisDOT's website
11. Whether the contractor returned calls of firms expressing interest in a timely manner.

APPENDIX D
Good Faith Effort Evaluation Guidance
Excerpt from Appendix A of 49 CFR Part 26

APPENDIX A TO PART 26 -- GUIDANCE CONCERNING GOOD FAITH EFFORTS

I. When, as a recipient, you establish a contract goal on a DOT assisted contract, a bidder must, in order to be responsible and/or responsive, make good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part 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.

II. In any situation in which you have established a contract goal, part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, it is up to you to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. 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.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

C. Providing 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.

D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes 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.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs 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 prime contractor to perform the work of a

contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non solicitation of bids in the contractor's efforts to meet the project goal.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, you may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.

Appendix E
Small Business Network [SBN] Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription.
Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
    a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for completion at a later time.

2. Create sub-quotes for the subcontracting community:
    a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
    b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
    c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE-preferred request.
    d. Add attachments to sub-quotes.

3. View sub-quote requests & responses:
    a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
    b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing.

4. View Record of Subcontractor Outreach Effort:
    a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a "Good Faith" effort in reaching out to the DBE community.
    b. Easily locate pre-qualified and certified small and disadvantaged businesses.
    c. Advertise to small and disadvantaged businesses more efficiently and cost effectively.
    d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency).

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs.

1. View and reply to sub-quote requests from primes:
    a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests, or hidden with one click if they are not applicable.

2. Select items when responding to sub-quote requests from primes:
    a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
    b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes.
    c. Add attachments to a sub-quote.

3. Create and send unsolicited sub-quotes to specific contractors:
    a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.

4. Easily select and price items for unsolicited sub-quotes:
    a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on a per-item basis as well.
    b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder.
    c. Add attachments to a sub-quote.
    d. Add unsolicited work items to sub-quotes that you are responding to.

5. Easy Access to Valuable Information
    a. Receive a confirmation that your sub-quote was opened by a prime.
    b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
    c. View important notices and publications from DOT targeted to small and disadvantaged businesses.

6. Accessing Small Business Network for WisDOT contracting opportunities
    a. If you are a contractor not yet subscribing to the Bid Express service, go to **www.bidx.com** and select "Order Bid Express." The Small Business Network is a part of the Bid Express Basic Service.
    b. DBE firms can request a Bid Express Small Business Network Account at no cost by calling 414-438-4588.

ADDITIONAL SPECIAL PROVISION 4

Payment to First-Tier Subcontractors

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor may also withhold routine retainage from payments due subcontractors.

Payment to Lower-Tier Subcontractors

Ensure that subcontracting agreements at all tiers provide prompt payment rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

Release of Routine Retainage

After granting substantial completion the department may reduce the routine retainage withheld from the prime contractor to 75 percent of the original total amount retained.

When the Department sends the semi-final estimate the department may reduce the routine retainage withheld from the prime contractor to 10 percent of the original total amount retained.

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work and that no routine retainage is being withheld. The department will pay the prime contractor in full and reduce the routine retainage withheld from the prime contractor to zero when the department approves the final estimate.

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

ADDITIONAL SPECIAL PROVISIONS 5

Fuel Cost Adjustment

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is $1.50 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \left(\frac{CFI}{BFI} - 1 \right) x\ Q\ x\ BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

ADDITIONAL SPECIAL PROVISION 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

109.1.1.2 Bid Items Designated as Pay Plan Quantity

Replace the entire text with the following effective with the June 2017 letting:

109.1.1.2.1 General

(1) If the schedule of items designates a bid item with a **P** in the item description, the department will use the plan quantity, the approximate quantity the schedule of items shows, for payment unless one or both of the following occurs:

- Scope changes regardless of the magnitude of the revised work.
- Errors and omissions that affect the plan quantity.

109.1.1.2.2 Scope Changes

(1) For engineer-directed quantity increases, the engineer will issue a contract change order for extra work, establish the cost of the added work as specified in 109.4, and measure the revised work. For engineer-directed quantity decreases, the engineer will issue a contract change order to adjust the plan quantity under the designated bid item.

109.1.1.2.3 Errors and Omissions

(1) The engineer may issue a change order under 105.4(5) to adjust the plan quantity for an error or omission and may revise the contract unit price as specified in 109.4.

305.2.1 General

Replace paragraph two with the following effective with the June 2017 letting:

(2) Where the contract specifies or allows 1 1/4-inch base, do not place reclaimed asphalt, reprocessed material, or blended materials below virgin aggregate materials unless the contract specifies or the engineer allows in writing.

310.2 Materials

Replace paragraph three with the following effective with the June 2017 letting:

(3) Do not place reclaimed asphalt, reprocessed material, or blended materials below open-graded base unless the contract specifies or the engineer allows in writing.

320.3.1.1 Consolidating, Finishing, and Curing

Replace paragraph two with the following effective with the June 2017 letting:

(2) Cure concrete base as specified for concrete pavement in 415.3.12. Use wax-based curing compound conforming to 501.2.9.

390.3.2 Concrete Patching

Replace paragraph two with the following effective with the June 2017 letting:

(2) Cure exposed patches as specified for concrete pavement in 415.3.12. Use wax-based curing compound conforming to 501.2.9. Protect as specified for concrete pavement in 415.3.14. Open to traffic as specified for concrete base in 320.3.

390.3.4 Special High Early Strength Concrete Patching

Replace the entire text with the following effective with the June 2017 letting:

(1) Construct as specified for special high early strength repairs under 416.3.8 except as follows:

- The contractor may delay removal for up to 14 calendar days after cutting the existing pavement.
- Open to traffic as specified for concrete base in 320.3.

(2) Cure exposed patches as specified for concrete pavement in 415.3.12. Use wax-based curing compound conforming to 501.2.9. Do not apply excess curing compound that could cause slippery pavement under traffic.

440.3.5.2 Corrective Actions for Localized Roughness

Replace paragraph two with the following effective with the September 2016 letting:

(2) The engineer will not direct corrective action or assess a pay reduction for an area of localized roughness without physically riding that work. The engineer will not direct corrective action on bridges without authorization from the department's bureau of structures.

450.3.1.1.4 Recording Truck Loads

Replace the entire text with the following effective with the December 2016 letting:

(1) If not using automatic batch recording, install a digital recorder as part of the platform truck or storage silo scales. Ensure that the recorder can produce a printed digital record of at least the gross or net weights of delivery trucks. Provide gross, tare, net weights, load count, and the cumulative tonnage; the date, time, ticket number, WisDOT project ID, and mix 250 number; and the mix type including the traffic, binder, and mix designation codes specified in 460.3.1. Ensure that scales cannot be manually manipulated during the printing process. Provide an interlock to prevent printing until the scales come to rest. Size the scales and recorder to accurately weigh the heaviest loaded trucks or tractor-trailers hauling asphaltic mixture. Ensure that recorded weights are accurate to within 0.1 percent of the nominal capacity of the scale.

(2) Ensure that tickets identify additives not included in the mix design submittal. Indicate on the ticket if the mixture will be placed under a cold weather paving plan and identify the warm mix additive and dosage rate required under 450.3.2.1.2.2.

455.3.2.1 General

Replace paragraph one with the following effective with the December 2016 letting:

(1) Apply tack coat only when the air temperature is 32 F or more unless the engineer approves otherwise in writing. Before applying tack coat ensure that the surface is reasonably free of loose dirt, dust, or other foreign matter. Do not apply to surfaces with standing water. Do not apply if weather or surface conditions are unfavorable or before impending rains.

460.2.1 General

Replace the entire text with the following effective with the December 2016 letting:

(1) Furnish a homogeneous mixture of coarse aggregate, fine aggregate, mineral filler if required, SMA stabilizer if required, recycled material if used, warm mix asphalt additive or process if used, and asphaltic material. Design mixtures conforming to table 460-1 and table 460-2 to 4.0% air voids to establish the aggregate structure.

(2) Determine the target JMF asphalt binder content for production from the mix design data corresponding to 3.0% air voids (97% Gmm) target at the design the number of gyrations (Ndes). Add liquid asphalt to achieve the required air voids at Ndes.

(3) For SMA, determine the target JMF asphalt binder content for production from the mix design data corresponding to 4.0% air voids (96% Gmm) target at Ndes.

460.2.8.2.1.5 Control Limits

Replace paragraph one with the following effective with the December 2016 letting:

(1) Conform to the following control limits for the JMF and warning limits based on a running average of the last 4 data points:

ITEM	JMF LIMITS	WARNING LIMITS
Percent passing given sieve:		
37.5-mm	+/- 6.0	+/- 4.5
25.0-mm	+/- 6.0	+/- 4.5
19.0-mm	+/- 5.5	+/- 4.0
12.5-mm	+/- 5.5	+/- 4.0
9.5-mm	+/- 5.5	+/- 4.0
2.36-mm	+/- 5.0	+/- 4.0
75-µm	+/- 2.0	+/- 1.5
Asphaltic content in percent	- 0.3	- 0.2
Air voids in percent[1]	+1.3/-1.0	+1.0/-0.7
VMA in percent[2]	- 0.5	- 0.2

[1] For SMA, JMF limits are +/-1.3 and warning limits are +/-1.0.

[2] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in table 460-1.

460.2.8.2.1.6 Job Mix Formula Adjustment

Replace paragraph one with the following effective with the December 2016 letting:

(1) The contractor may request adjustment of the JMF according to CMM 8-36.6.13.1. Have an HMA technician certified at a level appropriate for process control and troubleshooting or mix design submit a written JMF adjustment request. Ensure that the resulting JMF is within specified master gradation bands. The department will have a certified Hot Mix Asphalt, Mix Design, Report Submittals technician review the proposed adjustment and, if acceptable, issue a revised JMF.

460.2.8.3.1.6 Acceptable Verification Parameters

Replace paragraph one with the following effective with the December 2016 letting:

(1) The engineer will provide test results to the contractor within 2 mixture-production days after obtaining the sample. The quality of the product is acceptably verified if it meets the following limits:

- Va is within a range of 2.0 to 4.3 percent. For SMA, Va is within a range of 2.7 to 5.3 percent.
- VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.

460.3.3.1 Minimum Required Density

Replace paragraph one with the following effective with the December 2016 letting:

(1) Compact all layers of HMA mixture to the density table 460-3 shows for the applicable mixture, location, and layer.

TABLE 460-3 MINIMUM REQUIRED DENSITY[1]

LOCATION	LAYER	PERCENT OF TARGET MAXIMUM DENSITY		
		MIXTURE TYPE		
		LT and MT	HT	SMA[5]
TRAFFIC LANES[2]	LOWER	93.0[3]	93.0[4]	___
	UPPER	93.0	93.0	___
SIDE ROADS, CROSSOVERS, TURN LANES, & RAMPS	LOWER	93.0[3]	93.0[4]	___
	UPPER	93.0	93.0	___
SHOULDERS & APPURTENANCES	LOWER	91.0	91.0	___
	UPPER	92.0	92.0	___

[1] The table values are for average lot density. If any individual density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer may investigate the acceptability of that material.

[2] Includes parking lanes as determined by the engineer.

[3] Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

[4] Minimum reduced by 1.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

[5] The minimum required densities for SMA mixtures are determined according to CMM 8-15.

460.5.2.1 General

Replace paragraph six with the following effective with the December 2016 letting:

(6) If during a QV dispute resolution investigation the department discovers mixture with 1.5 > Va > 5.0 or VMA more than 1.0 below the minimum allowed in table 460-1, and the engineer allows that mixture to remain in place, the department will pay for the quantity of affected material at 50 percent of the contract price.

460.5.2.3 Incentive for HMA Pavement Density

Replace paragraph one with the following effective with the December 2016 letting:

(1) If the lot density is greater than the minimum specified in table 460-3 and all individual air voids test results for that mixture placed during the same day are within 2.5 - 4.0 percent, the department will adjust pay for that lot as follows:

INCENTIVE PAY ADJUSTMENT FOR HMA PAVEMENT DENSITY[1]

PERCENT LOT DENSITY ABOVE SPECIFIED MINIMUM	PAY ADJUSTMENT PER TON[2]
From -0.4 to 1.0 inclusive	$0
From 1.1 to 1.8 inclusive	$0.40
More than 1.8	$0.80

[1] SMA pavements are not eligible for density incentive.

[2] The department will prorate the pay adjustment for a partial lot.

501.2.6 Fly Ash

Replace the entire subsection with the following effective with the December 2016 letting:

501.2.6.1 General

(1) Fly ash is defined as a finely divided residue resulting from the combustion of coal in a base loaded electric generating plant, transported from the boiler by flue gases, and later collected, generally by precipitators. Use fly ash in concrete manufactured by facilities and processes known to provide satisfactory material.

(2) Test fly ash using a recognized laboratory, as defined in 501.2.2(1), starting at least 30 days before its proposed use, and continuing at ASTM-required frequencies as the work progresses. The manufacturer shall test the chemical and physical properties listed in tables 1 and 2 of ASTM C618 at the frequencies and by the test methods prescribed in ASTM C311.

(3) Use only one source of fly ash for a bid item of work under the contract, unless the engineer directs or allows otherwise in writing.

(4) Prequalify any proposed fly ash source as follows: The contractor shall obtain a copy of the certified report of tests or analysis made by a qualified independent laboratory, recognized by the department under 501.2.2, showing full and complete compliance with the above specification from the fly ash manufacturer and furnish it to the engineer. Provide this report to the engineer at least 14 calendar days before using the fly ash.

(5) The manufacturer shall retain test records for at least 5 years after completing the work, and provide these records upon request.

501.2.6.2 Class C Ash

(1) Conform to ASTM C618 class C except limit the loss on ignition to a maximum of 2 percent.

501.2.6.3 Class F Ash

(2) Furnish a class F fly ash from a source listed on the department's approved product list, and conform to ASTM C618 class F except limit the loss on ignition to a maximum of 2 percent.

502.3.7.8 Floors

Replace paragraph sixteen with the following effective with the September 2016 letting:

(16) The finished bridge floor shall conform to the surface test specified in 415.3.10. The engineer will not direct corrective grinding without authorization from the department’s bureau of structures.

503.3.2.1.1 Tolerances

Increase the "length of beam" max tolerance for prestressed concrete I-type girders from 3/4" to 1 1/2" effective with the December 2016 letting:

PRESTRESSED CONCRETE I-TYPE GIRDERS

Length of beam..... +/- 1/8" per 10', up to a max of +/- 1 1/2"

Errata

Make the following corrections to the standard specifications:

104.2.2.5 Change Orders for Eliminated Work

Correct errata by changing "eliminated bid items" to "eliminated work."

104.2.2.5 Change Orders for Eliminated Work

(1) The department has the right to partially eliminate or completely eliminate work the project engineer finds to be unnecessary for the project. If the project engineer partially eliminates or completely eliminates work, the project engineer will issue a contract change order for a fair and equitable amount as specified in 109.5.

105.4 Coordination of the Contract Documents

Correct errata to change "apparent error or omission" to just "error or omission."

(5) Neither the contractor nor the department may take advantage of an error or omission in the contract. Notify the engineer immediately as specified in 104.3 upon discovering an error or omission. The engineer will offer an interpretation and make the necessary corrections.

105.13.4 Content of Claim

Correct errata to change references to the "Blue Book" rates to reference "EquipmentWatch" rates.

(1) Include the following 5 items in the claim.

1. A concise description of the claim.
2. A clear contractual basis for the claim. This should include reference to 104.2 on revisions to the contract and as appropriate, specific reference to contract language regarding the bid items in question.
3. Other facts the contractor relies on to support the claim.
4. A concise statement of the circumstances surrounding the claim and reasons why the department should pay the claim. Explain how the claimed work is a change to the contract work.
5. A complete breakdown of the costs used to compile the claim. Include copies of all EquipmentWatch equipment rental rate sheets used, with the applicable number highlighted.

108.13 Terminating the Contract for Convenience of the Department

Correct errata by changing "eliminated bid items" to "eliminated work."

(4) If the department orders termination of the contract for convenience, the department will pay for all completed work as of that date at the contract price. The department will pay for partially completed work at agreed prices or by force account methods specified in 109.4.5 provided, however, that payment does not exceed the contract price for the bid item under which the work was performed. The department will pay for work eliminated by the termination only to the extent provided under 109.5. The department will pay for new work, if any, at agreed prices or paid for by force account methods specified in 109.4.5.

109.2 Scope of Payment

Correct errata to clarify that work under the contract is included in payment unless specifically excluded.

(2) The department will pay for the quantity of work acceptably completed and measured for payment as the measurement subsection for each bid item specifies. Within the contract provide means to furnish and install the work complete and in-place. Payment is full compensation for everything required to perform the work under the contract including, but not limited to, the work elements listed in the payment subsection. Payment also includes all of the following not specifically excluded in that payment subsection:

1. Furnishing and installing all materials as well as furnishing the labor, tools, supplies, equipment, and incidentals necessary to perform the work.
2. All losses or damages, except as specified in 107.14, arising from one or more of the following:
   - The nature of the work.
   - The action of the elements.
   - Unforeseen difficulties encountered during prosecution of the work.
3. All insurance costs, expenses, and risks connected with the prosecution of the work.
4. All expenses incurred because of an engineer-ordered suspension, except as specified in 104.2.2.3.
5. All infringements of patents, trademarks, or copyrights.
6. All other expenses incurred to complete and protect the work under the contract.

109.4.5.5.1 General

Correct errata to change references to the "Blue Book" rates to reference "EquipmentWatch" rates.

(2) The department will pay for use of contractor-owned equipment the engineer approves for force account work at published rates. The department will pay the contractor expense rates, as modified in 109.4.5.5, given in EquipmentWatch Cost Recovery (formerly Rental Rate Blue Book) . Base all rates on revisions effective on January 1 for all equipment used in that calendar year.

http://equipmentwatch.com/estimator/

109.4.5.5.2 Hourly Equipment Expense Rates (Without Operators)

Correct errata to change references to the "Blue Book" rates to reference "EquipmentWatch" rates.

(1) The contractor shall determine, and the department will confirm, hourly equipment expense rates as follows:

HEER = [RAF x ARA x (R/176)] + HOC

Where:

HEER = Hourly equipment expense rate.
RAF = EquipmentWatch regional adjustment factor.
ARA = EquipmentWatch age rate adjustment factor.
R = Current EquipmentWatch monthly rate.
HOC = EquipmentWatch estimated hourly operating cost.

(2) The EquipmentWatch hourly operating cost represents all costs of equipment operation, including fuel and oil, lubrication, field repairs, tires, expendable parts, and supplies.

109.4.5.5.3 Hourly Equipment Stand-By Rate

Correct errata to change references to the "Blue Book" rates to reference "EquipmentWatch" rates.

(1) For equipment that is in operational condition and is standing-by with the engineer's approval, the contractor shall determine, and the department will confirm, the hourly stand-by rate as follows:

HSBR = RAF x ARA x (R/176) x (1/2)

Where:

HSBR = Hourly stand-by rate.

RAF = EquipmentWatch regional adjustment factor.

ARA = EquipmentWatch age rate adjustment factor.

R = Current EquipmentWatch monthly rate.

(2) The department will limit payment for stand-by to 10 hours or less per day up to 40 hours per week. The department will not pay the contractor for equipment that is inoperable due to breakdown. The department will not pay for idle equipment if the contractor suspends work or if the contractor is maintaining or repairing the equipment.

109.4.5.5.4 Hourly Outside-Rented Equipment Rate

Correct errata to change references to the "Blue Book" rates to reference "EquipmentWatch" rates.

(1) If the contractor rents or leases equipment from a third party for force account work, the contractor shall determine, and the department will confirm, the hourly outside-rented equipment rate as follows:

HORER = HRI + HOC

Where:

HORER = Hourly outside-rented equipment rate

HRI = Hourly rental invoice costs prorated for the actual number of hours that rented equipment is operated solely on force account work

HOC = EquipmentWatch hourly operating cost.

109.5 Eliminated Work

Correct errata by changing "eliminated bid items" to "eliminated work."

109.5 Eliminated Work

(1) If the department partially eliminates or completely eliminates work as specified in 104.2.2.5, the department will pay contractor costs incurred due to that elimination. The department will pay a fair and equitable amount covering all costs incurred as of the date the work was deleted. Immediately submit a certified statement covering all money expended for the eliminated work.

(2) The department will execute a contract change order for the following costs related to eliminated work:

1. Preparation expenses defined as follows:
   - If preparation for the eliminated work has no value to other contract work, the department will reimburse the contractor in full for that preparation.
   - If preparation for the eliminated work is distributed over other contract work, the department will prorate reimbursement based on the value of the eliminated work compared to the total value of associated contract work.
2. All restocking and cancellation charges.
3. A markup for applicable overhead and other indirect costs paid as 7 percent of the contract price of the work actually eliminated.

(3) If the department partially eliminates or completely eliminates work, the department may pay for, and take ownership of, materials or supplies the contractor has already purchased.

201.3 Construction

Correct errata by changing the link from 201.3(14) to 201.3(15).

(16) Dispose of clearing and grubbing debris before proceeding with grading operations. If the contractor intends to burn debris but cannot secure burning permits on schedule, do not delay removing clearing debris from areas affected by other operations. While waiting to secure burning permits, pile clearing and grubbing debris beyond the limits affected by other work. Do not leave elm debris beyond the limits specified in 201.3(15).

204.3.2.2.1 General

Correct errata by removing the reference to 490 which was deleted effective with the 2017 spec.

(1) Under the Removing Pavement bid item, remove concrete pavements, concrete alleys, concrete driveways, or rigid base including all surfaces or other pavements superimposed on them.

440.1 Description

Correct errata to replace "150 feet of the points of curvature" with " entry and exit curves".

(2) Profile the final mainline riding surfaces greater than 1500 feet in continuous length. Include bridges, bridge approaches, and railroad crossings in the calculation of IRI. Exclude roundabouts and pavements within their entry and exit curves from the calculation of IRI.

460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater

Correct 460.2.8.2.1.3.1 (6) to change the reference from ASTM D4867 to AASHTO T283.

(6) Also conduct field tensile strength ratio tests according to AASHTO T283 on mixtures requiring an antistripping additive. Test each full 50,000 ton production increment, or fraction of an increment, after the first 5000 tons of production. Perform required increment testing in the first week of production of that increment. If field tensile strength ratio values are either below the spec limit or less than the mixture design JMF percentage value by 20 or more, notify the engineer. The engineer and contractor will jointly determine a corrective action.

506.2.8.3 Expansion Bearing Assemblies

Correct errata to update ASTMs and change the specified melting point from 622 +/- 3 to 621 +/- 18 F.

(6) Use PTFE materials that are virgin polytetrafluoroethylene fluorocarbon resin, unfilled conforming to ASTM D4894. The finished materials shall exhibit the following physical properties:

REQUIREMENT	TEST METHOD	UNFILLED VALUE
Hardness at 78 F	ASTM D2240 Shore "D"	50-65
Tensile strength, psi	ASTM D1708	2800 Min.
Elongation, percent	ASTM D1708	200 Min.
Specific gravity	ASTM D792	2.16 +/- 0.03
Melting point	ASTM D4591	621 +/- 18 F

514.3.2 Adjusting Floor Drains

Correct errata by clarifying priming and painting requirements for adjusted floor drains.

(1) If the plans show or contract specifies, provide new drain frames and inserts. Fabricate, blast clean, and apply a shop coat of primer. Touch up areas of damaged primer after installation with a department-approved organic zinc-rich primer.

657.2.2.1.1 General

Correct errata by eliminating the reference to department provided arms in the last sentence.

(1) Furnish shop drawings as specified in 506.3.2, except submit 5 copies with the materials list. Ensure the drawings contain sufficient detail to allow satisfactory review and show the outside diameters of the pole at the butt, top, and splice locations the plans show. Show the width, depth, length, and thickness of all material, and list pertinent ASTM specification designations and metal alloy designations together with the tensile strength of metallic members. Provide tightening procedures for arm-to-pole connections on the shop drawings.

657.2.2.1.4 Poles Designed Under Legacy Standards

Correct errata by deleting the entire subsection to eliminate redundant language.

657.2.2.2 Trombone Arms

Correct errata by changing the reference from 657.2.2.1.3 to 657.2.2.1.2.

(1) Design aluminum trombone arms as specified in 657.2.2.1.2 based on the completed maximum loading configuration the plans show. Furnish shop drawings conforming to 657.2.2.1.1 that show the width, depth, length, and thickness of all members. Also list the ASTM alloy designation and strength of each aluminum member on the shop drawings.

715.3.1.2.2 Lots by Lane-Feet

Correct errata ride spec reference from "the special provisions" to "440.3.4.2."

(1) The contractor may designate slip-formed pavement lots and sublots conforming to the following:

- Lots and sublots are one paving pass wide and may include one or more travel lanes, integrally placed shoulders, integrally placed ancillary concrete, and pavement gaps regardless of mix design and placement method.
- Sublots are 1000 feet long for single-lane and 500 feet long for two-lane paving. Align sublot limits with ride segment limits defined in 440.3.4.2. Adjust terminal sublot lengths to match the project length or, for staged construction, the stage length. Ensure that sublot limits match for adjacent paving passes. Pavement gaps do not affect the location of sublot limits.
- Create lots by grouping 4 to 8 adjacent sublots matching lots created for adjacent paving passes.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.

B. Costs for conforming to this special provision are incidental to the contract.

ADDITIONAL SPECIAL PROVISION 9
Electronic Certified Payroll Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to submit certified payrolls electronically. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

(2) Ensure that all tiers of subcontractors, as well as all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon. Not every contractor's payroll system is capable of producing export files. For details, see pages 17-22 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at:

http://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Nonsegregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Compliance with Governmentwide Suspension and Debarment Requirements
XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Non-discrimination Provisions

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the contractor under the contract until the contractor complies; and/or
b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

SEPTEMBER 2002

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.

2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2013

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

Effective August 2015 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this “Buy America” provision.

http://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

Upon completion of the project certify to the engineer, in writing using department form WS4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form WS4567 is available at:

http://wisconsindot.gov/hcciDocs/contracting-info/ws4567.doc

Effective February 2016 letting

Cargo Preference Act Requirement

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses.* "Use of United States-flag vessels:"

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) *Contractor and Subcontractor Clauses.* "Use of United States-flag vessels: The contractor agrees—"

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

Effective with February 2017 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

I. Prevailing Wage Rates, Hours of Labor, and Payment of Wages
II. Payroll Requirements
III. Postings at the Site of the Work
IV. Wage Rate Distribution
V. Additional Classifications

I. PREVAILING WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES

The U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) attached hereto and made a part hereof furnishes the prevailing wage rates pursuant to Section 84.062 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 84.062, Stats. Apprentices shall be paid at rates not less than those prescribed in their apprenticeship contract.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 16.856 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly base rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half:

January 1
Last Monday in May
July 4
First Monday in September
Fourth Thursday in November
December 25
The day before if January 1, July 4 or December 25 falls on a Saturday, and

The day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, euclid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 84.062 of the Wisconsin Statutes.

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous and accessible place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 84.062 of the Wisconsin Statutes.

b. A copy of the U.S. Department of Labor (Davis-Bacon, Minimum Wage Rates).

c. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

IV. WAGE RATE REDISTRIBUTION

A contractor or subcontractor performing work subject to a Davis-Bacon wage determination may discharge its minimum wage obligations for the payment of both straight time wages and fringe benefits by (1) paying both in cash, (2) making payments or incurring costs for bona fide fringe benefits, or (3) by a combination thereof. Thus, under the Davis-Bacon a contractor may offset an amount of monetary wages paid in excess of the minimum wage required under the determination to satisfy its fringe benefit obligations. *See* 40 USC 3142(d) and 29 CFR 5.31.

V. ADDITIONAL CLASSIFICATIONS

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5(a)(1)(ii)). The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination.

The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

a. The work to be performed by the classification requested is not performed by a classification in the wage determination; and

b. The classification is utilized in the area by the construction industry; and

c. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

General Decision Number: WI170010 06/23/2017 WI10

Superseded General Decision Number: WI20160010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	02/03/2017
2	02/10/2017
3	02/24/2017
4	03/17/2017
5	03/31/2017
6	04/21/2017
7	04/28/2017
8	06/02/2017
9	06/23/2017

BRWI0001-002 06/01/2016

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 31.84	20.95

BRWI0002-002 06/01/2016

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.04	19.70

BRWI0002-005 06/01/2016

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 35.07	20.51

BRWI0003-002 06/01/2016

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.22	20.57

BRWI0004-002 06/01/2016

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.59	21.49

BRWI0006-002 06/01/2016

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.04	19.75

BRWI0007-002 06/01/2016

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.53	20.95

BRWI0008-002 06/01/2016

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.98	20.62

BRWI0011-002 06/01/2016

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.22	20.57

BRWI0019-002 06/01/2016

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 31.98	20.81

BRWI0034-002 06/01/2015

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.86	17.22

CARP0087-001 05/01/2016

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 36.85	18.39

CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E.

of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER	$ 33.56	18.00
MILLWRIGHT	$ 35.08	18.35
PILEDRIVER	$ 34.12	18.00

CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter	$ 33.56	18.00
Millwright	$ 35.08	18.35
Pile Driver	$ 34.12	18.00

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0361-004 05/01/2016

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 34.57	18.16

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

ELEC0014-002 05/30/2016

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 32.00	19.28

ELEC0014-007 05/30/2016

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician	$ 24.35	13.15

Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video)

including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

ELEC0127-002 06/01/2016

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 37.71	30%+10.02

ELEC0158-002 05/30/2016

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
Electricians:	$ 30.50	29.50% + 9.57

ELEC0159-003 05/30/2016

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
Electricians:	$ 36.50	20.39

ELEC0219-004 06/01/2016

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over $180,000	$ 32.38	18.63
Electrical contracts under $180,000	$ 30.18	18.42

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* ELEC0242-005 06/04/2017

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 35.90	25.64

ELEC0388-002 05/30/2016

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:	$ 30.69	26.00% +10.05

ELEC0430-002 06/01/2016

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 36.07	21.84

ELEC0494-005 06/01/2016

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 36.01	24.00

ELEC0494-006 06/01/2017

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:	$ 32.06	21.88

ELEC0494-013 06/01/2015

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer	$ 16.47	14.84
Technician	$ 26.00	17.70

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 05/30/2016

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:	$ 30.68	17.28

ELEC0890-003 06/01/2016

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 32.45	26.10% + $10.56

ELEC0953-001 07/01/2015

	Rates	Fringes
Line Construction:		
(1) Lineman	$ 42.14	32% + 5.00
(2) Heavy Equipment Operator	$ 40.03	32% + 5.00
(3) Equipment Operator	$ 33.71	32% + 5.00
(4) Heavy Groundman Driver	$ 26.78	14.11
(5) Light Groundman Driver	$ 24.86	13.45
(6) Groundsman	$ 23.18	32% + 5.00

ENGI0139-005 06/01/2016

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 39.27	21.80
Group 2	$ 38.77	21.80
Group 3	$ 38.27	21.80
Group 4	$ 38.01	21.80
Group 5	$ 37.72	21.80
Group 6	$ 31.82	21.80

HAZARDOUS WASTE PREMIUMS:
EPA Level "A" protection - $3.00 per hour
EPA Level "B" protection - $2.00 per hour
EPA Level "C" protection - $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminious paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self- propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock

breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender.

GROUP 6: Off-road material hauler with or without ejector.

IRON0008-002 06/01/2016

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 30.86	25.42

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.15	25.42

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/01/2015

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER	$ 32.85	21.84

IRON0498-005 06/01/2016

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 36.29	30.77

IRON0512-008 05/01/2015

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 35.50	23.45

IRON0512-021 05/01/2015

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 31.04	23.45

LABO0113-002 06/01/2016

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 27.51	20.35
Group 2	$ 27.66	20.35
Group 3	$ 27.86	20.35
Group 4	$ 28.01	20.35
Group 5	$ 28.16	20.35
Group 6	$ 24.00	20.35

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

LABO0113-003 06/01/2016

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 26.76	20.35
Group 2	$ 26.86	20.35
Group 3	$ 26.91	20.35
Group 4	$ 27.11	20.35
Group 5	$ 26.96	20.35
Group 6	$ 23.85	20.35

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

LABO0113-011 06/01/2016

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 26.57	20.35
Group 2	$ 26.72	20.35
Group 3	$ 26.92	20.35
Group 4	$ 26.89	20.35
Group 5	$ 27.22	20.35
Group 6	$ 23.71	20.35

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

LABO0140-002 06/01/2016

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 30.67	16.55
Group 2	$ 30.77	16.55
Group 3	$ 30.82	16.55
Group 4	$ 31.02	16.55
Group 5	$ 30.87	16.55
Group 6	$ 27.30	16.55

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bitminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/01/2016

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 30.95	16.41
Group 2	$ 31.05	16.41
Group 3	$ 31.10	16.41
Group 4	$ 31.30	16.41
Group 5	$ 31.15	16.41
Group 6	$ 27.30	16.41

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

PAIN0106-008 05/02/2016

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 29.86	16.35
Spray, Sandblast, Steel	$ 30.46	16.35
Repaint:		
Brush, Roller	$ 28.36	16.35
Spray, Sandblast, Steel	$ 28.96	16.35

PAIN0108-002 06/01/2016

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 32.74	18.70
Spray & Sandblast	$ 33.74	18.70

PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER	$ 24.11	12.15

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2016

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 30.42	22.19
Brush	$ 30.07	22.19
Spray & Sandblast	$ 30.82	22.19

PAIN0802-002 06/01/2016

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 27.50	17.72

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2016

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER	$ 24.39	11.72

PAIN0934-001 06/01/2016

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 32.74	18.70
Spray	$ 33.74	18.70
Structural Steel	$ 32.89	18.70

PAIN1011-002 06/01/2016

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 24.56	11.93

PLAS0599-010 06/01/2016

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 39.46	17.17
Area 2 (BAC)	$ 35.07	19.75
Area 3	$ 35.61	19.40
Area 4	$ 34.70	20.51
Area 5	$ 36.27	18.73
Area 6	$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

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* TEAM0039-001 06/01/2017

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 27.40	20.48
3 or more Axles; Euclids Dumptor & Articulated, Truck Mechanic	$ 27.55	20.48
WELL DRILLER	$ 16.52	3.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or

"UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations

Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

General Decision Number: WI170015 06/23/2017 WI15

Superseded General Decision Number: WI20160015

State: Wisconsin

Construction Type: Heavy

Counties: Wisconsin Statewide.

HEAVY CONSTRUCTION PROJECTS (Excluding Tunnel, Sewer, and Water Lines).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	02/03/2017
2	02/10/2017
3	02/24/2017
4	03/17/2017
5	03/31/2017
6	04/14/2017
7	04/28/2017
8	06/02/2017
9	06/23/2017

BOIL0107-001 01/01/2017

	Rates	Fringes
BOILERMAKER		
Boilermaker	$ 35.65	29.89
Small Boiler Repair (under 25,000 lbs/hr)	$ 26.91	16.00

BRWI0001-002 06/01/2016

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 31.84	20.95

BRWI0002-002 06/01/2016

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.04	19.70

BRWI0002-005 06/01/2016

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 35.07	20.51

BRWI0003-002 06/01/2016

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.22	20.57

BRWI0004-002 06/01/2016

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.59	21.49

BRWI0006-002 06/01/2016

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.04	19.75

BRWI0007-002 06/01/2016

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.53	20.95

BRWI0008-002 06/01/2016

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.98	20.62

BRWI0009-001 06/01/2016

GREEN LAKE, MARQUETTE, OUTAGAMIE, SHAWANO, WAUPACA, WASHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.22	20.57

BRWI0011-002 06/01/2016

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.22	20.57

BRWI0013-002 06/01/2016

DANE, GRANT, IOWA, AND RICHLAND COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.49	20.99

BRWI0019-002 06/01/2016

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 31.98	20.81

BRWI0021-002 06/01/2015

DODGE AND JEFFERSON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.58	16.65

BRWI0034-002 06/01/2015

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.86	17.22

CARP0087-001 05/01/2016

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 36.85	18.39

CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER	$ 33.56	18.00
MILLWRIGHT	$ 35.08	18.35
PILEDRIVER	$ 34.12	18.00

CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter	$ 33.56	18.00
Millwright	$ 35.08	18.35
Pile Driver	$ 34.12	18.00

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0361-004 05/01/2016

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 34.57	18.16

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

CARP2337-003 06/01/2016

	Rates	Fringes
MILLWRIGHT		
Zone A	$ 29.98	21.53
Zone B	$ 29.98	21.53

ZONE DEFINITIONS

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON COUNTIES

ZONE B: KENOSHA & RACINE COUNTIES

ELEC0014-002 05/30/2016

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 32.00	19.28

ELEC0014-007 05/30/2016

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician	$ 24.35	13.15

Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

ELEC0127-002 06/01/2016

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 37.71	30%+10.02

ELEC0158-002 05/30/2016

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
Electricians:	$ 30.50	29.50% + 9.57

ELEC0159-003 05/30/2016

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin,

Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
Electricians:	$ 36.50	20.39

ELEC0219-004 06/01/2016

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over $180,000	$ 32.38	18.63
Electrical contracts under $180,000	$ 30.18	18.42

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* ELEC0242-005 06/04/2017

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 35.90	25.64

ELEC0388-002 05/30/2016

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:	$ 30.69	26.00% +10.05

ELEC0430-002 06/01/2016

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 36.07	21.84

ELEC0494-005 06/01/2016

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 36.01	24.00

ELEC0494-006 06/01/2017

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:	$ 32.06	21.88

ELEC0494-013 06/01/2015

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes

Sound & Communications
Installer.....$ 16.47 14.84
Technician.....$ 26.00 17.70

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 05/30/2016

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:	$ 30.68	17.28

ELEC0890-003 06/01/2016

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 32.45	26.10% + $10.56

ELEC0953-001 07/01/2015

	Rates	Fringes
Line Construction:		
(1) Lineman	$ 42.14	32% + 5.00
(2) Heavy Equipment Operator	$ 40.03	32% + 5.00
(3) Equipment Operator	$ 33.71	32% + 5.00
(4) Heavy Groundman Driver	$ 26.78	14.11
(5) Light Groundman Driver	$ 24.86	13.45
(6) Groundsman	$ 23.18	32% + 5.00

ENGI0139-001 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 43.21	20.40
Group 2	$ 42.71	20.40
Group 3	$ 42.21	20.40
Group 4	$ 41.52	20.40
Group 5	$ 39.34	20.40
Group 6	$ 34.19	20.40

HAZARDOUS WASTE PREMIUMS:
EPA Level "A" Protection: $3.00 per hour
EPA Level "B" Protection: $2.00 per hour
EPA Level "C" Protection: $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, Tower Cranes, Pedestal Tower Cranes and Derricks with or w/o attachments with a lifting capacity of over 100 tons; or Cranes, Tower Cranes, Pedestal Tower Cranes and Derricks with boom, leads, and/or jib lengths measuring 176 feet or longer; Self-Erecting Tower Cranes over 4000 lbs lifting capacity; All Cranes with Boom Dollies; Boring Machines (directional); Master Mechanic. $0.50 additional per hour per 100 tons or 100 ft of boom over 200 ft or lifting capacity of crane over 200 tons to a maximum of 300 tons or 300 ft. Thereafter an increase of $0.01 per ft or ton, whichever is greater.

GROUP 2: Cranes, Tower Cranes, Pedestal Tower Cranes and Derricks with or without attachments with a lifting capacity of 100 tons or less; or Cranes, Tower Cranes Portable Tower Cranes, Pedestal Tower Cranes and Derricks with boom, leadsand/or jib lengths measuring 175 feet or less; Backhoes (excavators) 130,000 lbs and over; Caisson Rigs; Pile Drivers; Boring Machines (vertical or horizontal), Versi-Lift, Tri-Lift, Gantry 20,000 lbs & over.

GROUP 3: Backhoe (excavator) under 130,000 lbs;Self-erecting Tower Crane 4000 lbs & under lifting capacity;Traveling Crane (bridge type); Skid Rigs; Dredge Operator; Mechanic; Concrete Paver (over 27E); Concrete Spreader and Distributor; Forklift/ Telehandler (machinery- moving / steel erection); Hydro Blaster, 10,000 psi and over

GROUP 4: Material Hoists; Stack Hoists; Hydraulic Backhoe (tractor or truck mounted); Hydraulic Crane, 5 tons or under (tractor or truck mounted); Hoist (tuggers 5 tons & over); Hydro-Excavators/Daylighters; Concrete Pumps Rotec type Conveyors; Tractor/Bulldozer/End Loader (over 40 hp); Motor Patrol; Scraper Operator; Sideboom; Straddle Carrier; Welder; Bituminous Plant and Paver Operator; Roller over 5 tons; Rail Leveling Machine (Railroad); Tie Placer; Tie Extractor; Tie Tamper; Stone Leveler; Rotary Drill Operator and Blaster; Percussion Drill Operator; Air Track Drill and/or Hammers; Gantrys (under 20,000 lbs); Tencher (wheel type or chain type having 8 inch or larger bucket); Milling Machine; Off-Road Material Haulers.

GROUP 5: Backfiller; Concrete Auto Breaker (large); Concrete Finishing Machines (road type); Rubber Tired Roller; Concrete Batch Hopper; Concrete Conveyor Systems; Grout Pumps; Concrete Mixers (14S or over); Screw Type Pumps and Gypsum Pumps; Tractor, Bulldozer, End Loader (under 40 hp); Trencher (chain type, bucket under 8 inch); Industrial Locomotives; Rollers under 5 tons; Stump Grinder/Chipper (Large); Timber Equipment; Firemen (pile drivers and derricks); Personnel Hoist, Telehandler over 8000 lbs; Robotic Tool Carrier with or without attachments

GROUP 6: Tampers - Compactors (riding type); Assistant Engineer; A-Frames and Winch Trucks; Concrete Auto Breaker; Hydrohammers (small); Brooms and Sweepers; Hoist (tuggers under 5 tons); Boats (Tug, Safety, Work Barges, Launch); Shouldering Machine Operator; Prestress Machines; Screed Operator; Stone Crushers and Screening Plants; Screed Operators (milling machine), Farm or Industrial Tractor Mounted Equipment; Post Hole Digger; Fireman (asphalt plants); Air Compressors over 400 CFM; Generators, over 150 KW; Augers (vertical and horizontal); Air, Electric, Hydraulic Jacks (slipform); Skid Steer Loaders (with or without attachments); Boiler Operators (temporary heat); Refrigeration Plant/Freeze Machines; Power Pack Vibratory/Ultra Sound Drivers and Extractors; Welding Machines; Heaters (mechanical); Pumps; Winches (small electric); Oiler and Greaser; Rotary Drill Tender; Conveyor; Forklifts/Telehandler 8000 lbs & under; Elevators: Automatic Hoists; Pumps (well points); Combination Small Equipment Operators

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ENGI0139-003 06/01/2016

REMAINING COUNTIES

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 38.72	20.60
Group 2	$ 37.47	20.60
Group 3	$ 36.27	20.60
Group 4	$ 35.74	20.60
Group 5	$ 33.67	20.60
Group 6	$ 33.04	20.60

HAZARDOUS WASTE PREMIUMS:
EPA Level "A" Protection: $3.00 per hour
EPA Level "B" Protection: $2.00 per hour
EPA Level "C" Protection: $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of over 100 tons; Cranes, Tower Cranes, and Derricks with boom, leads and/or jib lengths 176 ft or longer.

GROUP 2: Backhoes (Excavators) weighing 130,00 lbs and over; Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of 100 tons or less; Cranes, Tower Cranes, and Derricks with boom, leads, and/or jib lengths 175 ft or less; Caisson Rigs; Pile Driver

GROUP 3: Backhoes (Excavators) weighing under 130,000 lbs; Travelling Crane (bridge type); Milling Machine; Concrete Paver over 27 E; Concrete Spreader and Distributor; Concrete Laser Screed; Concrete Grinder and Planing Machine; Slipform Curb and Gutter Machine; Boring Machine (Directional); Dredge Operator; Skid Rigs; over 46 meter Concrete Pump.

GROUP 4: Hydraulic Backhoe (tractor or truck mounted); Hydraulic Crane, 10 tons or less; Tractor, Bulldozer, or End Loader (over 40 hp); Motor Patrol; Scraper Operator; Bituminous Plant and Paver Operator; Screed-Milling Machine; Roller over 5 tons; Concrete pumps 46 meter and under; Grout Pumps; Rotec type machine; Hydro Blaster, 10,000 psi and over; Rotary Drill Operator; Percussion Drilling Machine; Air Track Drill with or without integral hammer; Blaster; Boring Machine (vertical or horizontal); Side Boom; Trencher, wheel type or chain type having 8 inch or larger bucket; Rail Leveling Machine (Railroad); Tie Placer; Tie Extractor; Tie Tamper; Stone Leveler; Straddle Carrier; Material Hoists; Stack Hoist; Man Hoists; Mechanic and Welder; Off Road Material Haulers.

GROUP 5: Tractor, Bulldozer, or Endloader (under 40 hp); Tampers -Compactors, riding type; Stump Chipper, large; Roller, Rubber Tire; Backfiller; Trencher, chain type (bucket under 8 inch); Concrete Auto Breaker, large; Concrete Finishing Machine (road type); Concrete Batch Hopper; Concrete Conveyor Systems; Concrete Mixers, 14S or over; Pumps, Screw Type and Gypsum); Hydrohammers, small; Brooms and Sweeeprs; Lift Slab Machine; Roller under 5 tons; Industrial Locomotives; Fireman (Pile Drivers and Derricks); Pumps (well points); Hoists, automatic; A-Frames and Winch Trucks; Hoists (tuggers); Boats (Tug, Safety, Work Barges and Launches); Assistant Engineer

GROUP 6: Shouldering Machine Operator; Farm or Industrial Tractor mounted equipment; Post Hole Digger; Auger (vertical and horizontal); Skid Steer Loader with or without attachments; Robotic Tool Carrier with or without attachments; Power Pack Vibratory/Ultra Sound Driver and Extractor; Fireman (Asphalt Plants); Screed Operator; Stone Crushers and Screening Plants; Air, Electric, Hydraulic Jacks (Slip Form); Prestress Machines; Air Compressor, 400 CFM or over; Refrigeration Plant/Freese Machine; Boiler Operators (temporary heat); Forklifts; Welding Machines; Generators; Pumps over 3"; Heaters, Mechanical; Combination small equipment operator; Winches, small electric; Oiler; Greaser; Rotary Drill Tender; Conveyor; Elevator Operator

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IRON0008-002 06/01/2016

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 30.86	25.42

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.15	25.42

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/01/2015

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER	$ 32.85	21.84

IRON0512-008 05/01/2015

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 35.50	23.45

IRON0512-021 05/01/2015

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 31.04	23.45

LABO0113-002 06/01/2016

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 27.51	20.35
Group 2	$ 27.66	20.35
Group 3	$ 27.86	20.35
Group 4	$ 28.01	20.35
Group 5	$ 28.16	20.35
Group 6	$ 24.00	20.35

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler;

Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

LABO0113-003 06/01/2016

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 26.76	20.35
Group 2	$ 26.86	20.35
Group 3	$ 26.91	20.35
Group 4	$ 27.11	20.35
Group 5	$ 26.96	20.35
Group 6	$ 23.85	20.35

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

LABO0113-011 06/01/2016

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 26.57	20.35
Group 2	$ 26.72	20.35
Group 3	$ 26.92	20.35
Group 4	$ 26.89	20.35
Group 5	$ 27.22	20.35
Group 6	$ 23.71	20.35

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

LABO0140-002 06/01/2016

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 30.67	16.55
Group 2	$ 30.77	16.55
Group 3	$ 30.82	16.55
Group 4	$ 31.02	16.55
Group 5	$ 30.87	16.55
Group 6	$ 27.30	16.55

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bitminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/01/2016

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 30.95	16.41
Group 2	$ 31.05	16.41
Group 3	$ 31.10	16.41
Group 4	$ 31.30	16.41
Group 5	$ 31.15	16.41
Group 6	$ 27.30	16.41

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

PAIN0106-008 05/02/2016

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 29.86	16.35
Spray, Sandblast, Steel	$ 30.46	16.35
Repaint:		
Brush, Roller	$ 28.36	16.35
Spray, Sandblast, Steel	$ 28.96	16.35

PAIN0108-002 06/01/2016

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 32.74	18.70
Spray & Sandblast	$ 33.74	18.70

PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER	$ 24.11	12.15

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2016

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 30.42	22.19
Brush	$ 30.07	22.19
Spray & Sandblast	$ 30.82	22.19

PAIN0802-002 06/01/2016

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND,

ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 27.50	17.72

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2016

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER	$ 24.39	11.72

PAIN0934-001 06/01/2016

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 32.74	18.70
Spray	$ 33.74	18.70
Structural Steel	$ 32.89	18.70

PAIN1011-002 06/01/2016

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 24.56	11.93

PLAS0599-010 06/01/2016

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 39.46	17.17
Area 2 (BAC)	$ 35.07	19.75
Area 3	$ 35.61	19.40
Area 4	$ 34.70	20.51
Area 5	$ 36.27	18.73
Area 6	$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

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* PLUM0011-003 05/15/2017

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, SAWYER, AND WASHBURN COUNTIES

	Rates	Fringes
PLUMBER	$ 40.02	19.53

PLUM0075-002 06/01/2016

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
PLUMBER	$ 40.27	21.47

PLUM0075-004 06/01/2016

DODGE (Watertown), GREEN, JEFFERSON, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
PLUMBER	$ 40.52	21.47

PLUM0075-009 06/01/2016

COLUMBIA, DANE, IOWA, MARQUETTE, RICHLAND AND SAUK COUNTIES

	Rates	Fringes
PLUMBER	$ 38.82	20.12

PLUM0111-007 06/01/2016

MARINETTE COUNTY (Niagara only)

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 32.19	21.28

PLUM0118-002 06/01/2016

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
Plumber and Steamfitter	$ 40.95	19.95

PLUM0400-003 05/30/2016

ADAMS,BROWN, CALUMET, DODGE (except Watertown), DOOR, FOND DU LAC, GREEN LAKE,KEWAUNEE, MANITOWOC, MARINETTE (except Niagara), MENOMINEE, OCONTO, OUTAGAMIE, SHAWANO, SHEBOYGAN, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 34.39	17.65

PLUM0434-002 05/29/2016

BARON, BUFFALO, CHIPPEWA, CLARK, CRAWFORD, DUNN, EAU CLAIRE, FLORENCE, FOREST, GRANT, JACKSON, JUNEAU, LA CROSSE, LANGLADE, LINCOLN, MARATHON, MONROE, ONEIDA, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RUSK, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILAS, AND WOOD COUNTIES

	Rates	Fringes
PIPEFITTER	$ 38.20	16.72

PLUM0601-003 06/01/2016

DODGE (Watertown), GREEN, JEFFERSON, LAFAYETTE, MILWAUKEE, OZAUKEE, ROCK, WASHINGTON AND WAUKESHA COUNTIES

	Rates	Fringes
PIPEFITTER	$ 43.26	22.96

PLUM0601-009 06/01/2016

COLUMBIA, DANE, IOWA, MARQUETTE, RICHLAND AND SAUK COUNTIES

	Rates	Fringes
PIPEFITTER	$ 46.43	19.54

TEAM0039-002 06/01/2017

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axle Trucks	$ 27.40	20.25
3 or more axles; Euclids or Dumptor, Articulated Truck, Mechanic	$ 27.55	20.25

SUWI2011-001 11/16/2011

	Rates	Fringes
WELL DRILLER	$ 16.52	

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example:

PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

March 2017

NOTICE TO BIDDERS
WAGE RATE DECISION

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0010	201.0105 Clearing	120.000 STA	_____.____	_____.____
0020	201.0120 Clearing	95.000 ID	_____.____	_____.____
0030	201.0205 Grubbing	120.000 STA	_____.____	_____.____
0040	201.0220 Grubbing	95.000 ID	_____.____	_____.____
0050	203.0100 Removing Small Pipe Culverts	63.000 EACH	_____.____	_____.____
0060	203.0200 Removing Old Structure (station) 001. 438+55 SB	LS	LUMP SUM	_____.____
0070	203.0200 Removing Old Structure (station) 002. 438+55 NB	LS	LUMP SUM	_____.____
0080	203.0200 Removing Old Structure (station) 005. 580+29.50 SB	LS	LUMP SUM	_____.____
0090	203.0200 Removing Old Structure (station) 006. 579+87.70	LS	LUMP SUM	_____.____
0100	203.0225.S Debris Containment (structure) 005. B-53-36	LS	LUMP SUM	_____.____
0110	203.0225.S Debris Containment (structure) 006. B-53-37	LS	LUMP SUM	_____.____
0120	203.0500.S Removing Old Structure Over Waterway (station) 003. Station 565+53.42	LS	LUMP SUM	_____.____
0130	203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 001. 369+90.72 'SB'	LS	LUMP SUM	_____.____
0140	203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 002. 369+90.72 'NB'	LS	LUMP SUM	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0150	204.0100 Removing Pavement	222,915.000 SY	_____.____	_____.____
0160	204.0115 Removing Asphaltic Surface Butt Joints	144.000 SY	_____.____	_____.____
0170	204.0120 Removing Asphaltic Surface Milling	664.000 SY	_____.____	_____.____
0180	204.0150 Removing Curb & Gutter	268.000 LF	_____.____	_____.____
0190	204.0165 Removing Guardrail	9,666.000 LF	_____.____	_____.____
0200	204.0170 Removing Fence	52,155.000 LF	_____.____	_____.____
0210	204.0180 Removing Delineators and Markers	218.000 EACH	_____.____	_____.____
0220	204.0195 Removing Concrete Bases	9.000 EACH	_____.____	_____.____
0230	204.0210 Removing Manholes	9.000 EACH	_____.____	_____.____
0240	204.0220 Removing Inlets	67.000 EACH	_____.____	_____.____
0250	204.0245 Removing Storm Sewer (size) 010. 12-Inch	1,284.000 LF	_____.____	_____.____
0260	204.0245 Removing Storm Sewer (size) 011. 15-Inch	14.000 LF	_____.____	_____.____
0270	204.0245 Removing Storm Sewer (size) 012. 18-Inch	1,612.000 LF	_____.____	_____.____
0280	204.0245 Removing Storm Sewer (size) 013. 24-Inch	248.000 LF	_____.____	_____.____
0290	204.0245 Removing Storm Sewer (size) 014. 36-Inch	124.000 LF	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0300	204.0270 Abandoning Culvert Pipes	3.000 EACH	_____.____	_____.____
0310	204.0275 Closing Culvert Pipes	1.000 EACH	_____.____	_____.____
0320	204.0280 Sealing Pipes	1.000 EACH	_____.____	_____.____
0330	204.0291.S Abandoning Sewer	94.000 CY	_____.____	_____.____
0340	204.9060.S Removing (item description) 005. Apron Endwalls	10.000 EACH	_____.____	_____.____
0350	204.9090.S Removing (item description) 006. Cable Guard	18,268.000 LF	_____.____	_____.____
0360	204.9090.S Removing (item description) 007. Temporary Shoring Left In Place By Others	105.000 LF	_____.____	_____.____
0370	205.0100 Excavation Common	621,183.000 CY	_____.____	_____.____
0380	206.1000 Excavation for Structures Bridges (structure) 001. B-53-314	LS	LUMP SUM	_____.____
0390	206.1000 Excavation for Structures Bridges (structure) 002. B-53-315	LS	LUMP SUM	_____.____
0400	206.1000 Excavation for Structures Bridges (structure) 003. B-53-317	LS	LUMP SUM	_____.____
0410	206.1000 Excavation for Structures Bridges (structure) 004. B-53-318	LS	LUMP SUM	_____.____
0420	206.1000 Excavation for Structures Bridges (structure) 005. B-53-321	LS	LUMP SUM	_____.____
0430	206.1000 Excavation for Structures Bridges (structure) 006. B-53-322	LS	LUMP SUM	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0440	206.2000 Excavation for Structures Culverts (structure) 007. B-53-320	LS	LUMP SUM	_____.____
0450	206.5000 Cofferdams (structure) 001. B-53-314	LS	LUMP SUM	_____.____
0460	206.5000 Cofferdams (structure) 002. B-53-315	LS	LUMP SUM	_____.____
0470	208.1100 Select Borrow	38,823.000 CY	_____.____	_____.____
0480	209.0300.S Backfill Coarse Aggregate (size) 001. No. 1	1,029.000 CY	_____.____	_____.____
0490	209.0300.S Backfill Coarse Aggregate (size) 002. No. 2	497.000 CY	_____.____	_____.____
0500	210.1500 Backfill Structure Type A	3,988.000 TON	_____.____	_____.____
0510	210.2500 Backfill Structure Type B	2,124.000 TON	_____.____	_____.____
0520	211.0200 Prepare Foundation for Concrete Pavement (project) 001. 1003-10-76	LS	LUMP SUM	_____.____
0530	213.0100 Finishing Roadway (project) 001. 1003-10-81	1.000 EACH	_____.____	_____.____
0540	213.0100 Finishing Roadway (project) 002. 1003-10-76	1.000 EACH	_____.____	_____.____
0550	305.0110 Base Aggregate Dense 3/4-Inch	11,368.000 TON	_____.____	_____.____
0560	305.0120 Base Aggregate Dense 1 1/4-Inch	248,962.000 TON	_____.____	_____.____
0570	312.0110 Select Crushed Material	417,435.000 TON	_____.____	_____.____
0580	405.0100 Coloring Concrete WisDOT Red	17.000 CY	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0590	415.0085 Concrete Pavement 8 1/2-Inch **P**	2,075.000 SY	_____.____	_____.____
0600	415.0130 Concrete Pavement 13-Inch **P**	426,106.000 SY	_____.____	_____.____
0610	415.0210 Concrete Pavement Gaps	2.000 EACH	_____.____	_____.____
0620	415.0410 Concrete Pavement Approach Slab **P**	1,257.000 SY	_____.____	_____.____
0630	415.6000.S Rout and Seal	16,771.000 LF	_____.____	_____.____
0640	416.0610 Drilled Tie Bars	385.000 EACH	_____.____	_____.____
0650	416.0620 Drilled Dowel Bars	205.000 EACH	_____.____	_____.____
0660	416.1010 Concrete Surface Drains **P**	22.000 CY	_____.____	_____.____
0670	416.1110 Concrete Shoulder Rumble Strips **P**	116,607.000 LF	_____.____	_____.____
0680	440.4410 Incentive IRI Ride	72,000.000 DOL	1.00000	72,000.00
0690	450.4000 HMA Cold Weather Paving	300.000 TON	_____.____	_____.____
0700	455.0605 Tack Coat	5,360.000 GAL	_____.____	_____.____
0710	460.2000 Incentive Density HMA Pavement	16,740.000 DOL	1.00000	16,740.00
0720	460.5223 HMA Pavement 3 LT 58-28 S	1,378.000 TON	_____.____	_____.____
0730	460.5224 HMA Pavement 4 LT 58-28 S	1,160.000 TON	_____.____	_____.____
0740	460.6224 HMA Pavement 4 MT 58-28 S	10,107.000 TON	_____.____	_____.____
0750	460.7223 HMA Pavement 3 HT 58-28 S	4,425.000 TON	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0760	460.7423 HMA Pavement 3 HT 58-28 H	352.000 TON	_____.____	_____.____
0770	460.7424 HMA Pavement 4 HT 58-28 H	3,074.000 TON	_____.____	_____.____
0780	465.0105 Asphaltic Surface	261.400 TON	_____.____	_____.____
0790	465.0310 Asphaltic Curb	2,224.000 LF	_____.____	_____.____
0800	465.0315 Asphaltic Flumes	68.000 SY	_____.____	_____.____
0810	465.0400 Asphaltic Shoulder Rumble Strips	5,801.000 LF	_____.____	_____.____
0820	501.1000.S Ice Hot Weather Concreting	49,896.000 LB	_____.____	_____.____
0830	502.0100 Concrete Masonry Bridges **P**	2,978.000 CY	_____.____	_____.____
0840	502.3200 Protective Surface Treatment **P**	8,990.000 SY	_____.____	_____.____
0850	502.3210 Pigmented Surface Sealer	1,272.000 SY	_____.____	_____.____
0860	503.0128 Prestressed Girder Type I 28-Inch **P**	3,510.000 LF	_____.____	_____.____
0870	503.0137 Prestressed Girder Type I 36W-Inch **P**	1,880.000 LF	_____.____	_____.____
0880	503.0146 Prestressed Girder Type I 45W-Inch **P**	4,600.000 LF	_____.____	_____.____
0890	504.0100 Concrete Masonry Culverts **P**	968.000 CY	_____.____	_____.____
0900	505.0400 Bar Steel Reinforcement HS Structures **P**	300,960.000 LB	_____.____	_____.____
0910	505.0600 Bar Steel Reinforcement HS Coated Structures **P**	908,360.000 LB	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0920	505.0800.S Bar Steel Reinforcement HS Stainless Structures	13,350.000 LB	_____.____	_____.____
0930	506.2605 Bearing Pads Elastomeric Non-Laminated	244.000 EACH	_____.____	_____.____
0940	506.2610 Bearing Pads Elastomeric Laminated	36.000 EACH	_____.____	_____.____
0950	506.4000 Steel Diaphragms (structure) 001. B-53-314 **P**	30.000 EACH	_____.____	_____.____
0960	506.4000 Steel Diaphragms (structure) 002. B-53-315 **P**	30.000 EACH	_____.____	_____.____
0970	506.4000 Steel Diaphragms (structure) 003. B-53-17 **P**	18.000 EACH	_____.____	_____.____
0980	506.4000 Steel Diaphragms (structure) 004. B-53-18 **P**	18.000 EACH	_____.____	_____.____
0990	506.4000 Steel Diaphragms (structure) 005. B-53-321 **P**	32.000 EACH	_____.____	_____.____
1000	506.4000 Steel Diaphragms (structure) 006. B-53-322 **P**	32.000 EACH	_____.____	_____.____
1010	511.1100 Temporary Shoring	34,210.000 SF	_____.____	_____.____
1020	511.1200 Temporary Shoring (structure) 001. B-53-314	240.000 SF	_____.____	_____.____
1030	511.1200 Temporary Shoring (structure) 002. B-53-315	240.000 SF	_____.____	_____.____
1040	511.1200 Temporary Shoring (structure) 003. B-53-317	250.000 SF	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1050	511.1200 Temporary Shoring (structure) 005. B-53-320	2,268.000 SF	_____.____	_____.____
1060	511.1200 Temporary Shoring (structure) 006. B-53-321	4,690.000 SF	_____.____	_____.____
1070	511.1200 Temporary Shoring (structure) 007. B-53-322	4,690.000 SF	_____.____	_____.____
1080	511.2300 Temp Shoring Left in Place (location) 001. Station 563+00 LT To Station 578+65 LT	13,630.000 SF	_____.____	_____.____
1090	511.2300 Temp Shoring Left in Place (location) 002. Station 581+64 LT To Station 593+00 LT	6,030.000 SF	_____.____	_____.____
1100	516.0500 Rubberized Membrane Waterproofing	465.000 SY	_____.____	_____.____
1110	520.1015 Apron Endwalls for Culvert Pipe 15-Inch	4.000 EACH	_____.____	_____.____
1120	520.1018 Apron Endwalls for Culvert Pipe 18-Inch	4.000 EACH	_____.____	_____.____
1130	520.2015 Culvert Pipe Temporary 15-Inch	173.000 LF	_____.____	_____.____
1140	520.2018 Culvert Pipe Temporary 18-Inch	1,468.000 LF	_____.____	_____.____
1150	520.2024 Culvert Pipe Temporary 24-Inch	9.000 LF	_____.____	_____.____
1160	520.2030 Culvert Pipe Temporary 30-Inch	4.000 LF	_____.____	_____.____
1170	520.2036 Culvert Pipe Temporary 36-Inch	10.000 LF	_____.____	_____.____
1180	520.2048 Culvert Pipe Temporary 48-Inch	65.000 LF	_____.____	_____.____
1190	520.4112 Culvert Pipe Class IV 12-Inch	110.000 LF	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1200	520.4115 Culvert Pipe Class IV 15-Inch	4.000 LF	_____.____	_____.____
1210	520.4118 Culvert Pipe Class IV 18-Inch	477.000 LF	_____.____	_____.____
1220	520.8000 Concrete Collars for Pipe	21.000 EACH	_____.____	_____.____
1230	521.1012 Apron Endwalls for Culvert Pipe Steel 12-Inch	7.000 EACH	_____.____	_____.____
1240	521.1015 Apron Endwalls for Culvert Pipe Steel 15-Inch	1.000 EACH	_____.____	_____.____
1250	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	18.000 EACH	_____.____	_____.____
1260	521.1615 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 15-Inch 10 to 1	2.000 EACH	_____.____	_____.____
1270	522.0115 Culvert Pipe Reinforced Concrete Class III 15-Inch	68.000 LF	_____.____	_____.____
1280	522.0124 Culvert Pipe Reinforced Concrete Class III 24-Inch	664.000 LF	_____.____	_____.____
1290	522.0130 Culvert Pipe Reinforced Concrete Class III 30-Inch	346.000 LF	_____.____	_____.____
1300	522.0136 Culvert Pipe Reinforced Concrete Class III 36-Inch	511.000 LF	_____.____	_____.____
1310	522.0148 Culvert Pipe Reinforced Concrete Class III 48-Inch	237.000 LF	_____.____	_____.____
1320	522.0548 Culvert Pipe Reinforced Concrete Class V 48-Inch	304.000 LF	_____.____	_____.____
1330	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	53.000 EACH	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1340	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	20.000 EACH	_____.____	_____.____
1350	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	16.000 EACH	_____.____	_____.____
1360	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	6.000 EACH	_____.____	_____.____
1370	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	8.000 EACH	_____.____	_____.____
1380	522.1042 Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	4.000 EACH	_____.____	_____.____
1390	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	6.000 EACH	_____.____	_____.____
1400	523.0124 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 24x38-Inch	352.000 LF	_____.____	_____.____
1410	523.0129 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 29x45-Inch	169.000 LF	_____.____	_____.____
1420	523.0138 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 38x60-Inch	223.000 LF	_____.____	_____.____
1430	523.0148 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 48x76-Inch	348.000 LF	_____.____	_____.____
1440	523.0414 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	66.000 LF	_____.____	_____.____
1450	523.0514 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 14x23-Inch	4.000 EACH	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1460	523.0524 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	2.000 EACH	_____.____	_____.____
1470	523.0548 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 48x76-Inch	2.000 EACH	_____.____	_____.____
1480	524.0618 Apron Endwalls for Culvert Pipe Salvaged 18-Inch	7.000 EACH	_____.____	_____.____
1490	524.0624 Apron Endwalls for Culvert Pipe Salvaged 24-Inch	3.000 EACH	_____.____	_____.____
1500	524.0630 Apron Endwalls for Culvert Pipe Salvaged 30-Inch	1.000 EACH	_____.____	_____.____
1510	524.0636 Apron Endwalls for Culvert Pipe Salvaged 36-Inch	3.000 EACH	_____.____	_____.____
1520	524.0648 Apron Endwalls for Culvert Pipe Salvaged 48-Inch	1.000 EACH	_____.____	_____.____
1530	550.0010 Pre-Boring Unconsolidated Materials	550.000 LF	_____.____	_____.____
1540	550.0500 Pile Points	96.000 EACH	_____.____	_____.____
1550	550.1120 Piling Steel HP 12-Inch X 53 Lb	6,810.000 LF	_____.____	_____.____
1560	550.2108 Piling CIP Concrete 10 3/4 X 0.50-Inch	5,925.000 LF	_____.____	_____.____
1570	550.2126 Piling CIP Concrete 12 3/4 X 0.375-Inch	17,400.000 LF	_____.____	_____.____
1580	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D **P**	929.000 LF	_____.____	_____.____
1590	601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D **P**	426.000 LF	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1600	601.0582 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type T	57.000 LF	_____.____	_____.____
1610	603.1142 Concrete Barrier Type S42 **P**	62,249.000 LF	_____.____	_____.____
1620	603.8000 Concrete Barrier Temporary Precast Delivered	165,710.000 LF	_____.____	_____.____
1630	603.8125 Concrete Barrier Temporary Precast Installed	238,871.000 LF	_____.____	_____.____
1640	604.0400 Slope Paving Concrete	355.000 SY	_____.____	_____.____
1650	604.0500 Slope Paving Crushed Aggregate	2,944.000 SY	_____.____	_____.____
1660	606.0100 Riprap Light	55.000 CY	_____.____	_____.____
1670	606.0200 Riprap Medium	566.000 CY	_____.____	_____.____
1680	606.0300 Riprap Heavy	881.000 CY	_____.____	_____.____
1690	606.0400 Riprap Extra-Heavy	750.000 CY	_____.____	_____.____
1700	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	402.000 LF	_____.____	_____.____
1710	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	5,513.000 LF	_____.____	_____.____
1720	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	178.000 LF	_____.____	_____.____
1730	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	653.000 LF	_____.____	_____.____
1740	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	238.000 LF	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1750	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	248.000 LF	_____.____	_____.____
1760	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	2,804.000 LF	_____.____	_____.____
1770	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	86.000 LF	_____.____	_____.____
1780	608.0536 Storm Sewer Pipe Reinforced Concrete Class V 36-Inch	231.000 LF	_____.____	_____.____
1790	608.0548 Storm Sewer Pipe Reinforced Concrete Class V 48-Inch	1,107.000 LF	_____.____	_____.____
1800	611.0530 Manhole Covers Type J	7.000 EACH	_____.____	_____.____
1810	611.0606 Inlet Covers Type B	17.000 EACH	_____.____	_____.____
1820	611.0610 Inlet Covers Type BW	217.000 EACH	_____.____	_____.____
1830	611.0612 Inlet Covers Type C	5.000 EACH	_____.____	_____.____
1840	611.0642 Inlet Covers Type MS	32.000 EACH	_____.____	_____.____
1850	611.0654 Inlet Covers Type V	7.000 EACH	_____.____	_____.____
1860	611.1004 Catch Basins 4-FT Diameter	14.000 EACH	_____.____	_____.____
1870	611.2004 Manholes 4-FT Diameter	1.000 EACH	_____.____	_____.____
1880	611.2005 Manholes 5-FT Diameter	4.000 EACH	_____.____	_____.____
1890	611.2006 Manholes 6-FT Diameter	3.000 EACH	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1900	611.2007 Manholes 7-FT Diameter	1.000 EACH	_____.____	_____.____
1910	611.2008 Manholes 8-FT Diameter	3.000 EACH	_____.____	_____.____
1920	611.3220 Inlets 2x2-FT	7.000 EACH	_____.____	_____.____
1930	611.3225 Inlets 2x2.5-FT	227.000 EACH	_____.____	_____.____
1940	611.3901 Inlets Median 1 Grate	6.000 EACH	_____.____	_____.____
1950	611.3902 Inlets Median 2 Grate	12.000 EACH	_____.____	_____.____
1960	611.8110 Adjusting Manhole Covers	1.000 EACH	_____.____	_____.____
1970	611.8115 Adjusting Inlet Covers	13.000 EACH	_____.____	_____.____
1980	611.8120.S Cover Plates Temporary	10.000 EACH	_____.____	_____.____
1990	611.9710 Salvaged Inlet Covers	3.000 EACH	_____.____	_____.____
2000	612.0106 Pipe Underdrain 6-Inch	34,674.000 LF	_____.____	_____.____
2010	612.0212 Pipe Underdrain Unperforated 12-Inch	673.000 LF	_____.____	_____.____
2020	612.0218 Pipe Underdrain Unperforated 18-Inch	1,620.000 LF	_____.____	_____.____
2030	612.0406 Pipe Underdrain Wrapped 6-Inch	1,400.000 LF	_____.____	_____.____
2040	614.0150 Anchor Assemblies for Steel Plate Beam Guard	12.000 EACH	_____.____	_____.____
2050	614.0800 Crash Cushions Permanent	6.000 EACH	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2060	614.0905 Crash Cushions Temporary	46.000 EACH	_____.____	_____.____
2070	614.2300 MGS Guardrail 3	2,638.900 LF	_____.____	_____.____
2080	614.2500 MGS Thrie Beam Transition	315.200 LF	_____.____	_____.____
2090	614.2610 MGS Guardrail Terminal EAT	11.000 EACH	_____.____	_____.____
2100	614.2620 MGS Guardrail Terminal Type 2	3.000 EACH	_____.____	_____.____
2110	616.0100 Fence Woven Wire (height) 002. 4-FT **P**	52,336.000 LF	_____.____	_____.____
2120	616.0700.S Fence Safety	2,000.000 LF	_____.____	_____.____
2130	618.0100 Maintenance And Repair of Haul Roads (project) 001. 1003-10-81	1.000 EACH	_____.____	_____.____
2140	618.0100 Maintenance And Repair of Haul Roads (project) 002. 1003-10-76	1.000 EACH	_____.____	_____.____
2150	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
2160	624.0100 Water	1,775.000 MGAL	_____.____	_____.____
2170	625.0500 Salvaged Topsoil	511,391.000 SY	_____.____	_____.____
2180	627.0200 Mulching	372,403.000 SY	_____.____	_____.____
2190	628.1504 Silt Fence	47,940.000 LF	_____.____	_____.____
2200	628.1520 Silt Fence Maintenance	224,474.000 LF	_____.____	_____.____
2210	628.1905 Mobilizations Erosion Control	68.000 EACH	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2220	628.1910 Mobilizations Emergency Erosion Control	40.000 EACH	_____.____	_____.____
2230	628.2004 Erosion Mat Class I Type B	120,115.000 SY	_____.____	_____.____
2240	628.2023 Erosion Mat Class II Type B	18,200.000 SY	_____.____	_____.____
2250	628.2027 Erosion Mat Class II Type C	9,853.000 SY	_____.____	_____.____
2260	628.2039 Erosion Mat Class III Type D	181.000 SY	_____.____	_____.____
2270	628.6005 Turbidity Barriers	739.000 SY	_____.____	_____.____
2280	628.6510 Soil Stabilizer Type B	63.340 ACRE	_____.____	_____.____
2290	628.7005 Inlet Protection Type A	186.000 EACH	_____.____	_____.____
2300	628.7010 Inlet Protection Type B	219.000 EACH	_____.____	_____.____
2310	628.7020 Inlet Protection Type D	164.000 EACH	_____.____	_____.____
2320	628.7504 Temporary Ditch Checks	1,557.000 LF	_____.____	_____.____
2330	628.7555 Culvert Pipe Checks	200.000 EACH	_____.____	_____.____
2340	628.7560 Tracking Pads	11.000 EACH	_____.____	_____.____
2350	628.7570 Rock Bags	1,100.000 EACH	_____.____	_____.____
2360	629.0205 Fertilizer Type A	396.200 CWT	_____.____	_____.____
2370	630.0120 Seeding Mixture No. 20	176.000 LB	_____.____	_____.____
2380	630.0130 Seeding Mixture No. 30	11,284.000 LB	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2390	630.0200 Seeding Temporary	435.000 LB	_____.____	_____.____
2400	633.0100 Delineator Posts Steel	314.000 EACH	_____.____	_____.____
2410	633.0500 Delineator Reflectors	833.000 EACH	_____.____	_____.____
2420	633.1000 Delineator Brackets	625.000 EACH	_____.____	_____.____
2430	633.5200 Markers Culvert End	169.000 EACH	_____.____	_____.____
2440	634.0614 Posts Wood 4x6-Inch X 14-FT	11.000 EACH	_____.____	_____.____
2450	634.0616 Posts Wood 4x6-Inch X 16-FT	14.000 EACH	_____.____	_____.____
2460	634.0618 Posts Wood 4x6-Inch X 18-FT	45.000 EACH	_____.____	_____.____
2470	634.0620 Posts Wood 4x6-Inch X 20-FT	10.000 EACH	_____.____	_____.____
2480	634.0622 Posts Wood 4x6-Inch X 22-FT	1.000 EACH	_____.____	_____.____
2490	635.0200 Sign Supports Structural Steel HS	9,400.000 LB	_____.____	_____.____
2500	636.0100 Sign Supports Concrete Masonry **P**	46.800 CY	_____.____	_____.____
2510	636.0500 Sign Supports Steel Reinforcement	1,366.000 LB	_____.____	_____.____
2520	636.1500 Sign Supports Steel Coated Reinforcement HS	2,970.000 LB	_____.____	_____.____
2530	637.1220 Signs Type I Reflective SH	2,416.000 SF	_____.____	_____.____
2540	637.1230 Signs Type I Reflective F	105.000 SF	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2550	637.2210 Signs Type II Reflective H	1,118.000 SF	_____.____	_____.____
2560	637.2230 Signs Type II Reflective F	41.000 SF	_____.____	_____.____
2570	638.2101 Moving Signs Type I	2.000 EACH	_____.____	_____.____
2580	638.2102 Moving Signs Type II	50.000 EACH	_____.____	_____.____
2590	638.2601 Removing Signs Type I	21.000 EACH	_____.____	_____.____
2600	638.2602 Removing Signs Type II	88.000 EACH	_____.____	_____.____
2610	638.3000 Removing Small Sign Supports	70.000 EACH	_____.____	_____.____
2620	638.3100 Removing Structural Steel Sign Supports	33.000 EACH	_____.____	_____.____
2630	638.4000 Moving Small Sign Supports	48.000 EACH	_____.____	_____.____
2640	638.4100 Moving Structural Steel Sign Supports	4.000 EACH	_____.____	_____.____
2650	641.1200 Sign Bridge Cantilevered (structure) 001. S-53-113	LS	LUMP SUM	_____.____
2660	641.1200 Sign Bridge Cantilevered (structure) 002. B-53-114	LS	LUMP SUM	_____.____
2670	641.1200 Sign Bridge Cantilevered (structure) 004. S-53-104	LS	LUMP SUM	_____.____
2680	642.5401 Field Office Type D	1.000 EACH	_____.____	_____.____
2690	643.0200.S Traffic Control Surveillance and Maintenance (project) 001. 1003-10-81	700.000 DAY	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2700	643.0200.S Traffic Control Surveillance and Maintenance (project) 002. 1003-10-76	685.000 DAY	_____.____	_____.____
2710	643.0300 Traffic Control Drums	101,884.000 DAY	_____.____	_____.____
2720	643.0420 Traffic Control Barricades Type III	7,845.000 DAY	_____.____	_____.____
2730	643.0705 Traffic Control Warning Lights Type A	8,964.000 DAY	_____.____	_____.____
2740	643.0715 Traffic Control Warning Lights Type C	8,156.000 DAY	_____.____	_____.____
2750	643.0800 Traffic Control Arrow Boards	719.000 DAY	_____.____	_____.____
2760	643.0900 Traffic Control Signs	43,601.000 DAY	_____.____	_____.____
2770	643.0910 Traffic Control Covering Signs Type I	8.000 EACH	_____.____	_____.____
2780	643.0920 Traffic Control Covering Signs Type II	12.000 EACH	_____.____	_____.____
2790	643.1000 Traffic Control Signs Fixed Message	772.000 SF	_____.____	_____.____
2800	643.1050 Traffic Control Signs PCMS	970.000 DAY	_____.____	_____.____
2810	643.2000 Traffic Control Detour (project) 001. 1003-10-81	1.000 EACH	_____.____	_____.____
2820	643.3000 Traffic Control Detour Signs	4,216.000 DAY	_____.____	_____.____
2830	645.0105 Geotextile Type C	1,473.000 SY	_____.____	_____.____
2840	645.0111 Geotextile Type DF Schedule A	19,759.000 SY	_____.____	_____.____
2850	645.0120 Geotextile Type HR	4,350.000 SY	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
2860	645.0140 Geotextile Type SAS	120.000 SY	_____.____	_____.____
2870	645.0220 Geogrid Type SR	11,900.000 SY	_____.____	_____.____
2880	646.0106 Pavement Marking Epoxy 4-Inch	72,688.000 LF	_____.____	_____.____
2890	646.0107.S Pavement Marking Grooved Epoxy 4-Inch	70,224.000 LF	_____.____	_____.____
2900	646.0126 Pavement Marking Epoxy 8-Inch	49.000 LF	_____.____	_____.____
2910	646.0690.S Removing Pavement Markings Water Blasting	202,149.000 LF	_____.____	_____.____
2920	646.0841.S Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	15,626.000 LF	_____.____	_____.____
2930	646.0843.S Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	8,049.000 LF	_____.____	_____.____
2940	646.0900.S Pavement Marking Late Season	16,300.000 LF	_____.____	_____.____
2950	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	15,117.000 LF	_____.____	_____.____
2960	649.0403 Temporary Pavement Marking Epoxy 4-Inch	436,957.000 LF	_____.____	_____.____
2970	649.0801 Temporary Pavement Marking Removable Tape 8-Inch	1,023.000 LF	_____.____	_____.____
2980	649.0803 Temporary Pavement Marking Epoxy 8-Inch	10,997.000 LF	_____.____	_____.____
2990	652.0125 Conduit Rigid Metallic 2-Inch	48.000 LF	_____.____	_____.____
3000	652.0125 Conduit Rigid Metallic 2-Inch **P**	144.000 LF	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3010	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch **P**	3,138.000 LF	_____.____	_____.____
3020	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch **P**	3,073.000 LF	_____.____	_____.____
3030	652.0615 Conduit Special 3-Inch	228.000 LF	_____.____	_____.____
3040	652.0700.S Install Conduit into Existing Item	13.000 EACH	_____.____	_____.____
3050	653.0222 Junction Boxes 18x12x6-Inch	12.000 EACH	_____.____	_____.____
3060	653.0900 Adjusting Pull Boxes	4.000 EACH	_____.____	_____.____
3070	653.0905 Removing Pull Boxes	11.000 EACH	_____.____	_____.____
3080	654.0105 Concrete Bases Type 5	3.000 EACH	_____.____	_____.____
3090	654.0106 Concrete Bases Type 6	6.000 EACH	_____.____	_____.____
3100	655.0615 Electrical Wire Lighting 10 AWG	972.000 LF	_____.____	_____.____
3110	655.0625 Electrical Wire Lighting 6 AWG	8,529.000 LF	_____.____	_____.____
3120	655.0630 Electrical Wire Lighting 4 AWG	80.000 LF	_____.____	_____.____
3130	656.0200 Electrical Service Meter Breaker Pedestal (location) 001. ITS Cabinet	LS	LUMP SUM	_____.____
3140	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	1.000 EACH	_____.____	_____.____
3150	657.0322 Poles Type 5-Aluminum	1.000 EACH	_____.____	_____.____
3160	659.0700 Lighting Units Walkway	5.000 EACH	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3170	659.1115 Luminaires Utility LED A	42.000 EACH	_____._____	_____._____
3180	659.2130 Lighting Control Cabinets 120/240 30-Inch	1.000 EACH	_____._____	_____._____
3190	670.0100 Field System Integrator	LS	LUMP SUM	_____._____
3200	670.0200 ITS Documentation	LS	LUMP SUM	_____._____
3210	671.0132 Conduit HDPE 3-Duct 2-Inch **P**	30,477.000 LF	_____._____	_____._____
3220	671.0232 Conduit HDPE Directional Bore 3-Duct 2-Inch **P**	620.000 LF	_____._____	_____._____
3230	672.0100 Base ITS Controller Cabinet	1.000 EACH	_____._____	_____._____
3240	674.0200 Cable Microwave Detector	90.000 LF	_____._____	_____._____
3250	675.0300 Install Mounted Controller Microwave Detector Assembly	2.000 EACH	_____._____	_____._____
3260	675.0400.S Install Ethernet Switch	1.000 EACH	_____._____	_____._____
3270	678.0500 Communication System Testing	LS	LUMP SUM	_____._____
3280	690.0150 Sawing Asphalt	19,904.000 LF	_____._____	_____._____
3290	690.0250 Sawing Concrete	4,734.000 LF	_____._____	_____._____
3300	715.0415 Incentive Strength Concrete Pavement	129,041.600 DOL	1.00000	129,041.60
3310	715.0502 Incentive Strength Concrete Structures	45,684.000 DOL	1.00000	45,684.00
3320	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	2,000.000 HRS	5.00000	10,000.00

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3330	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	3,000.000 HRS	5.00000	15,000.00
3340	SPV.0035 Special 001. Roadway Embankment	282,260.000 CY	_____.____	_____.____
3350	SPV.0035 Special 740. High Performance Concrete (HPC) Masonry Structures **P**	3,668.000 CY	_____.____	_____.____
3360	SPV.0060 Special 001. Baseline CPM Progress Schedule	1.000 EACH	_____.____	_____.____
3370	SPV.0060 Special 002. CPM Progress Schedule Updates and Accepted Revisions	25.000 EACH	_____.____	_____.____
3380	SPV.0060 Special 003. Emergency Access Gate	2.000 EACH	_____.____	_____.____
3390	SPV.0060 Special 004. Access Gate 6-Foot	6.000 EACH	_____.____	_____.____
3400	SPV.0060 Special 005. Fixed Message Sign Portable Support	10.000 EACH	_____.____	_____.____
3410	SPV.0060 Special 008. Test Pits	45.000 EACH	_____.____	_____.____
3420	SPV.0060 Special 009. Removing Billboard Sign and Sign Structure	4.000 EACH	_____.____	_____.____
3430	SPV.0060 Special 010. Covering Storm Sewer	67.000 EACH	_____.____	_____.____
3440	SPV.0060 Special 011. Concrete Cutoff Wall	13.000 EACH	_____.____	_____.____
3450	SPV.0060 Special 012. Manhole Structure 170B	1.000 EACH	_____.____	_____.____
3460	SPV.0060 Special 014. Utility Line Opening	5.000 EACH	_____.____	_____.____
3470	SPV.0060 Special 015. Barrier Wall Delineation	804.000 EACH	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3480	SPV.0060 Special 020. Cover Plates	2.000 EACH	_____.____	_____.____
3490	SPV.0060 Special 025. Reinforced Concrete Endwalls and Grates, 24x38-Inch	2.000 EACH	_____.____	_____.____
3500	SPV.0060 Special 026. Reinforced Concrete Endwalls and Grates 29x45-Inch	2.000 EACH	_____.____	_____.____
3510	SPV.0060 Special 027. Reinforced Concrete Endwalls and Grates 38x60-Inch	2.000 EACH	_____.____	_____.____
3520	SPV.0060 Special 028. Reinforced Concrete Endwalls and Grates 48x76-Inch	2.000 EACH	_____.____	_____.____
3530	SPV.0060 Special 030. Clay Anti-Seepage Collar	2.000 EACH	_____.____	_____.____
3540	SPV.0060 Special 031. Temporary Concrete Barrier Gate	3.000 EACH	_____.____	_____.____
3550	SPV.0060 Special 032. Reinstall Temporary Concrete Barrier Gate	3.000 EACH	_____.____	_____.____
3560	SPV.0060 Special 040. Closed Inlet Cover	3.000 EACH	_____.____	_____.____
3570	SPV.0060 Special 350. Salvage and Reinstall Light Pole	6.000 EACH	_____.____	_____.____
3580	SPV.0060 Special 401. Fiber Tracer Marker Post	16.000 EACH	_____.____	_____.____
3590	SPV.0060 Special 402. Pull Box Non-Conductive 24X42-Inch	7.000 EACH	_____.____	_____.____
3600	SPV.0060 Special 403. Remove Electrical Service Meter Breaker Pedestal	1.000 EACH	_____.____	_____.____
3610	SPV.0060 Special 404. Salvage and Reinstall Microwave Detector Assembly	2.000 EACH	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3620	SPV.0060 Special 405. Install IP Wireless 5.8 GHz Radio/Antenna	2.000 EACH	_____.____	_____.____
3630	SPV.0060 Special 406. Communication Vault-Round	16.000 EACH	_____.____	_____.____
3640	SPV.0090 Special 001. Compost Tube	1,525.000 LF	_____.____	_____.____
3650	SPV.0090 Special 002. Reinstall Temporary Snow Fence	12,825.000 LF	_____.____	_____.____
3660	SPV.0090 Special 016. Concrete Pavement Joint Sealing	17,440.000 LF	_____.____	_____.____
3670	SPV.0090 Special 017. Pipe Boring & Jacking 36-Inch	232.000 LF	_____.____	_____.____
3680	SPV.0090 Special 018. Pipe Boring & Jacking 48-Inch	623.000 LF	_____.____	_____.____
3690	SPV.0090 Special 020. Furnishing Snow Fence	1,000.000 LF	_____.____	_____.____
3700	SPV.0090 Special 021. Installing Snow Fence	1,000.000 LF	_____.____	_____.____
3710	SPV.0090 Special 022. Concrete Barrier Temporary Precast Left In Place	1,472.000 LF	_____.____	_____.____
3720	SPV.0090 Special 030. Drain Slotted Longitudinal Temporary	608.000 LF	_____.____	_____.____
3730	SPV.0090 Special 203. Traffic Control Gawk Screen Furnished	1,650.000 LF	_____.____	_____.____
3740	SPV.0090 Special 204. Traffic Control Gawk Screen Installed	1,650.000 LF	_____.____	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3750	SPV.0105 Special 001. Survey Project 1003-10-76 with Optional AMG for Concrete Pavement and Base Course	LS	LUMP SUM	_____.____
3760	SPV.0105 Special 002. Survey Project 1003-10-81 with Optional AMG for Concrete Pavement and Base Course	LS	LUMP SUM	_____.____
3770	SPV.0105 Special 003. Concrete Pavement Joint Layout	LS	LUMP SUM	_____.____
3780	SPV.0105 Special 010. Traffic Control For Turtle Creek Recreational Vehicles	LS	LUMP SUM	_____.____
3790	SPV.0105 Special 350. Remove Lighting Control Cabinet	LS	LUMP SUM	_____.____
3800	SPV.0105 Special 351. Temporary Lighting System CTH S Interchange	LS	LUMP SUM	_____.____
3810	SPV.0105 Special 401. Salavage and Reinstall ITS Field Cabinet	LS	LUMP SUM	_____.____
3820	SPV.0105 Special 402. Salvage and Reinstall Hardwired Bluetooth Sensor	LS	LUMP SUM	_____.____
3830	SPV.0105 Special 403. Temporary Open/Closed Sign System	LS	LUMP SUM	_____.____
3840	SPV.0105 Special 480. Weigh-In-Motion System	LS	LUMP SUM	_____.____
3850	SPV.0105 Special 481. Weigh-In-Motion System Warranty Maintenance	LS	LUMP SUM	_____.____
3860	SPV.0105 Special 482. Static Scale System Electronics	LS	LUMP SUM	_____.____
3870	SPV.0105 Special 483. Static Scale System Warranty Maintenance	LS	LUMP SUM	_____.____

Proposal ID: 20170808001 **Project(s):** 1003-10-76, 1003-10-81

Federal ID(s): WISC 2017397, WISC 2017398

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
3880	SPV.0165 Special 701. Temporary Shoring Railroad	2,650.000 SF	_____.____	_____.____
3890	SPV.0165 Special 750. Longitudinal Grooving Bridge Deck **P**	63,354.000 SF	_____.____	_____.____
3900	SPV.0180 Special 002. Roadside Infiltration Ditch Compost	6,465.000 SY	_____.____	_____.____
3910	SPV.0180 Special 005. Concrete Truck Apron 8-Inch	74.000 SY	_____.____	_____.____
3920	SPV.0180 Special 010. Emulsified Asphalt Median Treatment	220.000 SY	_____.____	_____.____
3930	SPV.0195 Special 740. Excavating, Hauling & Disposal of Contaminated Soil	580.000 TON	_____.____	_____.____
	Section: 0001		**Total:**	_____.____
			Total Bid:	_____.____

PLEASE ATTACH SCHEDULE OF ITEMS HERE