

# HIGHWAY WORK PROPOSAL

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

Proposal Number:

Ø 3

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Rock	1003-10-74		Illinois State Line - Madison Creek Road Bridge B-53-0316	IH 39
Rock	1003-10-75		Illinois State Line - Madison Woodman Road Bridge B-53-0319	IH 39
Rock	1003-10-77		Illinois State Line - Madison CTH S to STH 11	IH 39
Rock	1003-10-78		Illinois State Line - Madison Stateline Rd to CTH S	IH 39
Rock	1003-10-82		Illinois State Line - Madison Stateline Rd Bridge B-53-0325	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, \$ 440,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: June 14, 2016 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code
Contract Completion Time September 1, 2017	<b>SAMPLE</b> <b>NOT FOR BIDDING PURPOSES</b>
Assigned Disadvantaged Business Enterprise Goal 0%	This contract is exempt from 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, embankment, base aggregate dense, HMA pavement, removing Structures B-53-41 / B-53-38 / B-53-204, Structures B-53-316 / B-53-319 / B-53-325, traffic control, permanent signing, pavement marking, temporary shoring left in place, culvert pipe, temporary barrier, MGS guardrail.	
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](http://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<sup>TM</sup> web site.
  2. Use Expedite<sup>TM</sup> software to enter a unit price for every item in the schedule of items.
  3. Submit the bid according to the requirements of Expedite<sup>TM</sup> software and the Bid Express<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> 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<sup>TM</sup> generated schedule of items is not the same on each page.
  2. The check code printed on the printout of the Expedite<sup>TM</sup> 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

DT1303 1/2006

Wisconsin Department of Transportation

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)

## 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**

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

\_\_\_\_\_  
(Signature of Attorney-in-Fact)

## 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

DT1305 8/2003

Wisconsin Department of Transportation

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.

[illegible]

**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.....	3
2.	Scope of Work. ....	3
3.	Prosecution and Progress. ....	3
4.	Traffic. ....	11
5.	Lane Rental Fee Assessment. ....	24
6.	Holiday Work Restrictions. ....	25
7.	Utilities.....	26
8.	Contract Award and Execution.....	33
9.	Timely Decision Making Manual. ....	38
10.	Public Convenience and Safety. ....	38
11.	Other Contracts. ....	39
12.	Railroad Insurance and Coordination. ....	39
13.	Erosion Control.....	40
14.	Driven Piles.....	41
15.	Concrete Pavements.....	41
16.	Notice to Contractor, Revisions to Traffic Control Plans.....	42
17.	Notice to Contractor, New or Revised Temporary Construction Access to I-39/90. ....	43
18.	Notice to Contractor – Airport Operating Restrictions.....	44
19.	Notice to Contractor - Construction Safety. ....	46
20.	Notice to Contractor, Notification of Demolition and/or Renovation No Asbestos Found. ....	50
21.	Hauling Restrictions.....	52
22.	Clearing and Grubbing, Items 201.0105, and 201.0205.....	52
23.	Debris Containment B-53-41, Item 203.0225.S.001; B-53-204, Item 203.0225.S.002; B-53-38, Item 203.0225.S.003. ....	54
24.	Removing Concrete Surface Partial Depth, Item 204.0109.S. ....	56
25.	Removing Apron Endwall, Item 204.9060.S.001.....	57
26.	Roadway Excavation. ....	57
27.	Borrow. ....	57
28.	Base Aggregate Dense 3/4 –Inch, item 305.0110.....	58
29.	Base Aggregate Dense 1 ¼-Inch, Item 305.0120. ....	58
30.	QMP Base Aggregate. ....	58
31.	<b>SPECIAL</b> HMA Pavement 3 LT 58-28 S, Item 460.5223; HMA Pavement 4 LT 58-28 S, Item 460.5224; HMA Pavement 2 HT 58-28 S, Item 460.7222; HMA Pavement 3 HT 58-28 S, Item 460.7223; HMA Pavement 3 HT 58-28 H, Item 460.7423; HMA Pavement 4 HT 58-28 H, Item 460.7424. ....	67
32.	QMP HMA Pavement Nuclear Density.....	71
33.	Aggregate Quality Testing for Concrete Pavement and HPC Structure Mixes.....	78
34.	Temporary Shoring Left In Place B-53-56. ....	80

35.	Concrete Staining B-53-316, Item 517.1010.S.001; B-53-325, Item 517.1010.S.002; B-53-319, Item 517.1010.S.003. ....	80
36.	Blue Specific Service Signs. ....	82
37.	Nighttime Work Lighting-Stationary. ....	82
38.	Traffic Control Signs, Item 643.0900. ....	84
39.	Locating No-Passing Zones, Item 648.0100. ....	85
40.	Intelligent Transportation Systems – General Requirements. ....	85
41.	Intelligent Transportation Systems – Control of Materials. ....	88
42.	Intelligent Transportation Systems – Conduit. ....	88
43.	Install Conduit Into Existing Item, Item 652.0700.S. ....	89
44.	Base Camera Pole 50-FT, Item 672.0250. ....	89
45.	Roadway Embankment, Item SPV.0035.001. ....	90
46.	Baseline CPM Progress Schedule, Item SPV.0060.001; CPM Progress Schedule Updates and Accepted Revisions, Item SPV.0060.002. ....	91
47.	Access Gate 6-Foot, Item SPV.0060.003. ....	101
48.	Salvage Terminal High-Tension Cable TL-3, Gibraltar, Item SPV.0060.004; Salvage High-Tension Cable TL-3, Socketed Gibraltar, Item SPV.0090.001. ....	102
49.	Reinstall Terminal High-Tension Cable TL-3, Gibraltar, Item SPV.0060.005; Reinstall High-Tension Cable TL-3, Socketed Gibraltar, Item SPV.0090.002. ....	103
50.	Fiber Tracer Marker Post, Item SPV.0060.006. ....	106
51.	Cover Plate Left In Place, Item SPV.0060.007. ....	107
52.	Traffic Control Barricades Type III with Sign, Item SPV.0060.008. ....	107
53.	Traffic Control Gawk Screen Furnished, Item SPV.0090.003; and Traffic Control Gawk Screen Installed, Item SPV.0090.004. ....	109
54.	Compost Tube, Item SPV.0090.005. ....	111
55.	Fence Chain Link Polymer-Coated 6-Ft., Item SPV.0090.750. ....	114
56.	Concrete Barrier Temporary Precast Left In Place, Item SPV.0090.006. ....	117
57.	Concrete Barrier Temporary Precast Anchoring, Item SPV.0090.007. ....	118
58.	Furnishing Snow Fence, Item SPV.0090.008, Installing Snow Fence, Item SPV.0090.009. ....	119
59.	Survey Project 1003-10-74, Item SPV.0105.001; 1003-10-75, Item SPV.0105.002; 1003-10-77, Item SPV.0105.003; 1003-10-78, Item SPV.0105.004; 1003-10-82, Item SPV.0105.005. ....	120



## **SPECIAL PROVISIONS**

### **1. General.**

Perform the work under this construction contract for Project 1003-10-74, Illinois State Line – Madison, Creek Road Bridge B-53-0316, IH 39, Rock County, Wisconsin; Project 1003-10-75, Illinois State Line – Madison, Woodman Road Bridge B-53-0319, IH 39, Rock County, Wisconsin; Project 1003-10-77, Illinois State Line – Madison, CTH S to STH 11, IH 39, Rock County, Wisconsin; Project 1003-10-78, Illinois State Line – Madison, Stateline Road to CTH S, IH 39, Rock County, Wisconsin; Project 1003-10-82, Illinois State Line – Madison, Stateline Rd Bridge B-53-0325, IH 39, 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, 2016 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 (20151210)

### **2. Scope of Work.**

The work under this contract shall consist of grading, embankment, base aggregate dense, HMA pavement, removing existing bridges, Structures B-53-316, B-53-319, B-53-325, culvert pipe, temporary barrier, temporary shoring left in place, MGS guardrail, finishing items, traffic control, 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 contractor is advised that there may be multiple mobilizations for such items as erosion control, traffic control, signing items, temporary pavement markings and other incidental items related to the staging. The department will make no additional payment for said mobilizations.

IH 39/90 is an oversize-overweight (OSOW) route. Maintain access for all OSOW movements during all stages of construction.

Where new HMA pavement matches existing pavement, do not remove the existing asphalt pavement within 300 feet of the match point until the new base aggregate dense left to be placed is within 300 feet of the match point.

### **Interim Completion and Winter Shutdown**

Complete construction operations on Projects 1003-10-74, 1003-10-75, and 1003-10-77 to the stage necessary to reopen all roadways and structures to through traffic prior to 12:01 AM November 18, 2016. Do not reopen until completing the following work: Structures to be completed with the exception of the staining, lower layer of HMA pavement, MSG Guardrail, and signing.

If the contractor fails to complete the work necessary to reopen all roadways and structures to through traffic prior to 12:01 AM November 18, 2016, the department will assess the contractor \$5,000 in interim liquidated damages for each calendar day that any roadway or structure remains closed after 12:01 AM, November 18, 2016. An entire calendar day will be charged for any period of time within a calendar day that any roadway or structure remains closed beyond 12:01 AM.

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

Do not begin construction on projects 1003-10-78 and 1003-10-82 until April 2017.

Winter Shutdown will commence November 18, 2016. All roadways and structures must be open to through traffic during winter shutdown. Do not resume work until April 1, 2017 unless approved by the engineer. Provide a start date in writing at least 14 days prior to the planned start of construction in 2017. Upon approval the engineer will issue the notice to proceed within 10 days of the approved start date.

### **Migratory Birds**

Swallow and other migratory birds' nests have not been observed on or under the existing bridge, but conditions to support nesting exist. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act.

The nesting season for swallows and other birds is usually between May 1 and August 30. Either prevent active nests from becoming established, or apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest

occupation by birds, or clearing nests from all structures before the nests become active in early spring. As a last resort, prevent birds from nesting by installing a suitable netting device on the remaining structure prior to nesting activity. Include the cost for preventing nesting in the cost of Removing Old Structure.

Conform to the schedule of operations and 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.

**Northern Long-eared Bat (*Myotis septentrionalis*)**

Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees and structures (bridges, culverts, buildings). 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.

In order to avoid adverse impacts upon the NLEBs, no vegetation clearing and grubbing within the identified clearing and grubbing limits will be allowed from June 1 to July 31, both dates inclusive.

If the required clearing and removal is not completed by May 31, the department will suspend all clearing and associated work directly impacted by clearing. The department will issue a notice to proceed with clearing and associated work directly impacted by clearing after consulting with the United States Fish and Wildlife Service (USFWS).

Submit a schedule and description of Clearing and/or Grubbing 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.

Notify the Project Leader 14 days in advance of any work on box culverts or bridges between April 1 and September 30 to allow time for department to complete the Bat Presence Structure Inspection Form.

If bats or evidence of bats are not found during the inspection, construction may proceed.

If bats or evidence of bats are found during the inspection, construction activities affecting the structure's roosting potential must stop until the WisDOT Regional Environmental Coordinator completes consultation with the Wisconsin Department of Natural Resources (WDNR) and/or United States Fish and Wildlife Service (USFWS).

**1003-10-74:**

**Stage 1**

This stage will consist of milling and paving the rumble strips along the northbound outside shoulder. This work shall be completed at night.

**Stage 2**

This stage will consist of widening the northbound lanes into the median. This work shall be completed at night.

**Stage 3**

This stage will consist of removing the portions of the existing bridge deck and parapet of span 2 and span 3 over both the northbound and southbound inside lanes and median. This work shall be completed at night.

**Stage 4**

This stage will consist of removing portions of the existing bridge deck of span 2 and span 3 over both the northbound and southbound outside lanes. This work shall be completed at night.

**Stage 5**

This stage will consist of removal of the concrete girders of span 2 and span 3 over the northbound and southbound lanes. This work shall be completed at night utilizing a rolling closure on both the northbound and southbound lanes.

**Stage 6**

This stage will consist of removing the median pier.

**Stage 7**

This stage will consist of removing the outside piers, existing bridge deck spans 1 and 4, parapet and abutments and girders over spans 1 and 4. This work shall be completed at night.

**Stage 8**

This stage will consist of construction of the median pier and abutments.

**Stage 9**

This stage will consist of placing the concrete girders over both the northbound and southbound lanes. This work shall be completed at night utilizing a rolling closure on both the northbound and southbound lanes.

**Stage 10**

This stage will consist of installing portions of the deck forming over both the northbound and southbound inside lanes and the median. This work shall be completed at night. No decking will be allowed over live lanes of traffic. A 6 foot buffer is required between the overhead work zone and the edge of the live traffic lane.

**Stage 11**

This stage will consist of installing portions of the deck forming over both the northbound and southbound outside lanes. This work shall be completed at night. No decking will be allowed over live lanes of traffic. A 6 foot buffer is required between the overhead work zone and the edge of the live traffic lane.

**Stage 12**

This stage will consist of pouring the concrete deck over both the northbound and southbound lanes.

**Stage 13**

This stage will consist of removing the forms and false work over both the northbound and southbound inside lanes and median. This work shall be completed at night. Work will not be allowed over live lanes of traffic. A 6 foot buffer is required as shown on the plans.

**Stage 14**

This stage will consist of removing the forms and false work over both the northbound and southbound outside lanes. This work shall be completed at night. Work will not be allowed over live lanes of traffic. A 6 foot buffer is required as shown on the plans.

**Stage 15A**

This stage will consist of staining the abutments and superstructure over both the northbound and southbound outside lanes. No staining will be allowed over live traffic lanes. A 6 foot buffer is required between the overhead work zone and the edge of the live traffic lane.

**Stage 15B**

This stage will consist of staining the abutments and superstructure over both the northbound and southbound inside lanes. No staining will be allowed over live traffic lanes. A 6 foot buffer is required between the overhead work zone and the edge of the live traffic lane.

**1003-10-75:****Stage 1**

- Mill 3.5" of existing Asphalt pavement over a width of 4 feet on the outside shoulders of the northbound and southbound roadways of IH 39.
- Place 3.5" of 4-foot wide new HMA Pavement Type E-30 on the outside shoulders.

**Stage 2**

- Remove existing median shoulders pavement and base on the northbound and southbound roadways of IH 39.
- Grade and widen median.
- Construct new 12-foot wide paved shoulders, place 6.5" thick HMA Pavement Type E-30 over 17" of Base Aggregate Dense 1 1/4-Inch.

**Stage 3**

- Place temporary precast concrete barrier.
- Remove existing beam guard in the median.
- Remove existing bridge deck and parapets to the approximate limits as shown on the plans.

**Stage 4**

- Place temporary precast concrete barrier in the new median shoulders.
- Remove existing bridge deck and parapets to the approximate limits as shown on the plans.

**Stage 5**

- Remove existing girders, see Traffic article for night time rolling closure and requirements.

**Stage 6**

- Remove existing middle pier and foundation.
- Stage 8, Drive new piling, construct center pier and footing.

**Stage 7**

- Remove existing outside piers and abutments.

**Stage 8**

- Construct median pier.
- Construct abutments.

**Stage 9**

- Erect concrete girders, see Traffic article for night time rolling closure and requirements.
- Install temporary precast concrete barrier on outside shoulders.

**Stage 10**

- Form deck to the approximate limits as shown on the plans.
- Move and install temporary precast concrete barrier on the median shoulders.

**Stage 11**

- Form deck to the approximate limits as shown on the plans.

**Stage 12**

- Place steel and pour the deck.

**Stage 13**

- Remove forms and falsework stripping to the approximate limits as shown on the plans (inside lanes and median).

**Stage 14**

- Remove forms and falsework stripping to the approximate limits as shown on the plans (outside lanes).

After Stage 14, place asphaltic shoulder rumble strip on the outside shoulders of northbound and southbound IH 39. Regrade median under Woodman Road and place new beam guard around the new pier.

**1003-10-77 and 1003-10-78:**

**Stage 1 Construction – Outside Shoulder Repair**

- Mobilization, installation of traffic control devices, and installation of erosion control
- Removing rumble strips
- Removing asphaltic surface milling
- Base patching concrete
- HMA Pavement

**Stage 2 Construction – Inside Widening and Paving**

- Removal of miscellaneous roadway items
- Roadway excavation and grading
- Culvert pipe installation
- Begin placement of base aggregate
- Place salvaged topsoil, begin restoration, install additional erosion control

**Stage 3 Construction – Outside Widening and Paving**

- Removal of miscellaneous roadway items
- Install ‘Temporary Shoring Left in Place’
- Roadway excavation and grading
- Culvert pipe installation
- Begin placement of base aggregate
- Place salvaged topsoil, begin restoration, install additional erosion control

**Stage 4 Construction**

- Complete roadway finishing
- Install permanent signing and pavement markings
- Remove traffic control devices

**1003-10-82:**

**Stage 1**

This stage will consist of milling and repaving northbound and southbound IH-39 median rumble strips. Widening the southbound median from the state line to the existing crossover, and repairing the northbound median along the existing bullnose. This work shall be completed at night.

**Stage 2**

This stage will consist of modifying the temporary barrier, removing the existing bridge deck, parapet, and girders over the southbound IH-39 lanes. This work shall be completed at night.

**Stage 3**

This stage will consist of modifying the temporary barrier, removing the existing bridge deck, parapet, and girders over the northbound IH-39 lanes. This work shall be completed at night.

**Stage 4**

This stage will consist of removing the existing bridge pier and abutments, constructing the new pier and abutments, and repairing damaged pavement from the construction of the new pier. This work can be completed during day or night, however removal and delivery of materials and equipment to and from the work area are restricted to nighttime operations only.

**Stage 5**

This stage will consist of installing the new girders and forming the deck over the northbound IH-39 lanes. This work shall be completed at night.

**Stage 6**

This stage will consist of modifying the temporary barrier, installing the new girders and forming the deck over the southbound IH-39 lanes. This work shall be completed at night.

**Stage 7**

This stage will consist of pouring the concrete deck over both the northbound and southbound IH-39 lanes. This work can be completed during the day.

**Stage 8**

This stage will consist of removing the falsework and placing the parapets over the southbound IH-39 lanes. This work shall be completed at night.

**Stage 9**

This stage will consist of modifying the barrier, removing the falsework, and placing the parapets over the northbound IH-39 lanes. This work shall be completed at night.

**Stage 10**

This stage will consist of staining the bridge over the northbound IH-39 lanes. This work shall be completed at night.

**Stage 11**

This stage will consist of modifying the barrier, and staining the bridge over the southbound IH-39 lanes. This work shall be completed at night.



## **Stage 12**

This stage will consist of installing pavement markings, and moving and removing the CBTP and cushions. This work shall be completed at night.

Do not switch traffic over to the next construction stage until all 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.

### **Contractor Coordination**

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

Hold progress meetings once per week. The meeting shall include the engineer and at least one member of the IH 39 Corridor Management Team. 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 or specific prime and subcontractor work operations including lane closures and traffic switches. Invite utilities, local officials and public works officials, and Rock County Sheriff representatives to attend the progress meetings. Agenda items at the meeting will include review of the contractor's schedule and subcontractor's 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.

### **Work Restrictions**

Do not close traffic lanes on IH 39/90 outside of 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 closures outside the allowed time periods.

Do not install or remove bridge deck false work over live lanes of traffic. See the Traffic article of these special provisions for the allowed lane closure time periods.

## **4. Traffic.**

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 of these special provisions.

Accomplish the construction sequence, including the associated traffic control as detailed in the Traffic Control plan sheets and as described herein.

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

Any revisions to traffic control plans shall adhere to Notice to Contractor, Revisions to Traffic Control Plans.

Construction traffic shall not exit the work zone between traffic control drums set for a lane closure.

IH 39/90 and the IL 75 ramps will remain open to through traffic at all times for the duration of the project except where noted below and in the Prosecution and Progress article of these special provisions.

Creek Road, Woodman Road, Stateline Road, Patrick Road, and Philhower Road will be closed to through traffic for the duration of the project. Provide access at all times for adjacent property owners. Maintain Traffic on IH 39 roadways as shown on the plans and described below:

**Traffic operations during all stages**

- Maintain two lanes of traffic in each direction at all times on IH 39/90 \*\*.
- Maintain traffic on ramps 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 on all ramps.

*\*\* Lane closures allowed as specified herein.*

**1003-10-74:**

**Traffic restrictions during Stage 1**

Traffic will be maintained on IH 39/90 southbound on existing lanes. Two lanes of traffic on IH 39/90 northbound will be maintained during the day and one lane of traffic will be maintained on IH 39/90 northbound during night-time hours.

**Traffic restrictions during Stage 2**

Traffic will be maintained on IH 39/90 southbound on existing lanes. Two lanes of traffic on IH 39/90 northbound will be maintained during the day and one lane of traffic will be maintained on IH 39/90 northbound during night-time hours.

**Traffic restrictions during Stage 3**

One lane of traffic will be maintained on IH 39/90 northbound and southbound during night-time hours. Two lanes of traffic will be maintained on IH 39/90 for day-time operations.

**Traffic restrictions during Stage 4**

One lane of traffic will be maintained on IH 39/90 northbound and southbound for night-time operations. Two lanes of traffic will be maintained on IH 39/90 for day-time operations.

**Traffic restrictions during Stage 5**

Rolling closures of IH 39/90 northbound and southbound will occur for a maximum of 15 minutes. All vehicle backups will be allowed to clear the project area prior to setting up the next rolling closure. Maximum number of nights for this stage is two.

**Traffic restrictions during Stage 6**

Night-time lane closures will be required. Two lanes of traffic will be maintained on IH 39/90 northbound and southbound during day-time operations.

**Traffic restrictions during Stage 7**

Night-time lane closures will be required. Two lanes of traffic will be maintained on IH 39/90 northbound and southbound during day-time operations.

**Traffic restrictions during Stage 8**

Night-time lane closures will be required. Two lanes of traffic will be maintained on IH 39/90 northbound and southbound during day-time operations.

**Traffic restrictions during Stage 9**

Rolling closures of IH 39/90 northbound and southbound will occur for a maximum of 15 minutes. All vehicle backups will be allowed to clear the project area prior to setting up the next rolling closure. Maximum number of nights for this stage is two.

**Traffic restrictions during Stage 10**

One lane of traffic will be maintained on IH 39/90 northbound and southbound for night-time operations. Two lanes of traffic will be maintained on IH 39/90 for day-time operations.

**Traffic restrictions during Stage 11**

One lane of traffic will be maintained on IH 39/90 northbound and southbound for night-time operations. Two lanes of traffic will be maintained on IH 39/90 for day-time operations.

**Traffic restrictions during Stage 12**

Two lanes of traffic will be maintained on IH 39/90 northbound and southbound.

**Traffic restrictions during Stage 13**

One lane of traffic will be maintained on IH 39/90 northbound and southbound for night-time operations. Two lanes of traffic will be maintained on IH 39/90 for day-time operations.

**Traffic restrictions during Stage 14**

One lane of traffic will be maintained on IH 39/90 northbound and southbound for night-time operations. Two lanes of traffic will be maintained on IH 39/90 for day-time operations.

**Traffic restrictions during Stage 15 A and B**

One lane of traffic will be maintained on IH 39/90 northbound and southbound for night-time operations. Two lanes of traffic will be maintained on IH 39/90 for day-time operations. Maintain Traffic on IH 39 roadways as shown on the plans and described below:

**1003-10-75:**

Close Woodman Road to traffic throughout the construction until the new bridge B-53-319 and approach roadway are completed. Notify school districts affected by closing Woodman Road.

**Stage 1 Traffic:**

- During night time hours;
  - Maintain one northbound traffic lane using existing median lane of the northbound roadway. Close outside lane and shoulder of the northbound roadway.
  - Maintain one southbound traffic lane using existing median lane of the southbound roadway. Close outside lane and shoulder of the southbound roadway.
- Open to two traffic lanes per direction all other times.

**Stage 2 Traffic:**

- During night time hours;
  - Maintain one northbound traffic lane using outside shoulder and lane of the northbound roadway. Close median lane and shoulder of the northbound roadway.
  - Maintain one southbound traffic lane using outside shoulder and lane of the southbound roadway. Close median lane and shoulder of the southbound roadway.
- Open to two traffic lanes per direction all other times.

**Stage 3 Traffic:**

- Stage 3 Traffic is similar to stage 2 above.

**Stage 4 Traffic:**

- During night time hours;
  - Maintain one northbound traffic lane using existing median lane and shoulder of the northbound roadway. Close outside lane and shoulder of the northbound roadway.
  - Maintain one southbound traffic lane using existing median lane and shoulder of the southbound roadway. Close outside lane and shoulder of the southbound roadway.
- Open to two traffic lanes per direction all other times.

**Stage 5 Traffic:**

- During night time hours;
  - Rolling closure of the southbound and northbound roadways will be allowed as described above. Complete closure of any roadway is limited to 15 minutes maximum.
- Open to two traffic lanes per direction all other times.
- Maximum number of nights for this stage is two.

**Stage 6 Traffic:**

- Maintain 2 northbound traffic lanes on existing northbound roadway.
- Maintain 2 southbound traffic lanes on existing southbound roadway.

**Stage 7 Traffic:**

- During night time hours;
  - Maintain one northbound traffic lane using existing median lane of the northbound roadway. Close outside lane and shoulder of the northbound roadway.
  - Maintain one southbound traffic lane using existing median lane of the southbound roadway. Close outside lane and shoulder of the southbound roadway.
- Open to two traffic lanes per direction all other times.

**Stage 8 Traffic:**

- Maintain 2 northbound traffic lanes on existing northbound roadway.
- Maintain 2 southbound traffic lanes on existing southbound roadway.
- Use Lane Closure during night time hours for delivery of materials.

**Stage 9 Traffic:**

- Stage 9 Traffic, rolling closure, is similar to stage 5 above. Maximum number of nights for this stage is two.

**Stage 10 Traffic:**

- Stage 10 Traffic is similar to stage 3 above.

**Stage 11 Traffic:**

- Stage 11 Traffic is similar to stage 7 above.

**Stage 12 Traffic:**

- Stage 12 Traffic is similar to stage 8 above.

**Stage 13 Traffic:**

- Stage 12 Traffic is similar to stage 2 above.

**Stage 14 Traffic:**

- Stage 14 Traffic is similar to stage 4 above.

**1003-10-77 and 1003-10-78:****Traffic restrictions during Stage 1**

Nighttime lanes closures will be required. One lane of traffic will be maintained on IH 39/90 southbound and two lanes of traffic will be maintained on IH 39/90 northbound for nighttime operations. Two lanes of traffic will be maintained on IH 39/90 northbound and southbound during daytime operations.

**Traffic restrictions during Stage 2**

Nighttime lanes closures will be required. One lane of traffic will be maintained on IH 39/90 northbound and southbound for nighttime operations. Two lanes of traffic will be maintained on IH 39/90 northbound and southbound during daytime operations.

**Traffic restrictions during Stage 3**

Nighttime lanes closures will be required. One lane of traffic will be maintained on IH 39/90 southbound and two lanes of traffic will be maintained on IH 39/90 northbound for nighttime operations. Two lanes of traffic will be maintained on IH 39/90 northbound and southbound during daytime operations.

**Traffic restrictions during Stage 4**

Nighttime lanes closures will be required. One lane of traffic will be maintained on IH 39/90 southbound and two lanes of traffic will be maintained on IH 39/90 northbound for nighttime operations. Two lanes of traffic will be maintained on IH 39/90 northbound and southbound during daytime operations.

**1003-10-82:**

IL-75 on and off ramps to be closed for a maximum of two nights each.

**Stage 1 Traffic:**

Daytime:

- Northbound – Normal patterns. 2' to barrier along northbound median at pier.
- Southbound – Two through lanes shifted 12' toward outside for both day and night. IL-75 exit ramp traffic would diverge from exterior southbound through lane. 6' to barrier along southbound median at pier.

Nighttime:

- Northbound – Close interior through lane (A 2 lane closure in Illinois will be required). IL-75 entrance ramp and outer through lane remain on existing pattern.
- Southbound – Close shifted interior through lane. IL-75 exit ramp traffic to diverge from exterior through lane.

**Stage 2 Traffic:**

Daytime:

- Match Stage 1 daytime configuration.

Nighttime:

- Northbound – Remains on normal daytime pattern.
- Southbound – Single Lane crossover for through traffic during Stage 2A, 2B, and 2C.
- Stage 2C – IL-75 exit ramp closed.

### **Stage 3 Traffic:**

Daytime:

- Match Stage 1 daytime configuration.

Nighttime:

- Northbound – Single Lane crossover for through traffic during Stage 3A, 3B, and 3C. (2 Lane Closure Required in Illinois for Stages 3A, 3B, and 3C).
- Stage 3C – IL-75 entrance ramp closed.
- Southbound – Remains on normal shifted daytime pattern.

### **Stage 4 Traffic:**

Daytime:

- Match Stage 1 daytime configuration.

Nighttime:

- Northbound – Same as daytime with interior lane closure required when necessary to deliver materials to/from IH 39. A 2 lane closure will be required in Illinois.
- Southbound – Same as daytime with interior lane closure required when necessary to deliver materials to/from IH 39.

### **Stage 5 Traffic:**

Daytime:

- Match Stage 1 daytime configuration.

Nighttime:

- Northbound – Single Lane crossover for through traffic during Stage 5A, 5B, and 5C. (2 Lane Closure Required in Illinois for Stages 5A, 5B, and 5C).
- Stage 5A – IL-75 entrance ramp closed.
- Southbound – Remains on normal shifted daytime pattern.

**Stage 6 Traffic:**

Daytime:

- Match Stage 1 daytime configuration.

Nighttime:

- Northbound – Remains on normal daytime pattern.
- Southbound – Single Lane crossover for through traffic during Stage 6A, 6B, and 6C.
- Stage 6A – IL-75 exit ramp closed.

**Stage 7 Traffic:**

Daytime:

- Match Stage 1 daytime configuration.

Nighttime:

- Northbound and southbound – Remains on normal daytime pattern.

**Stage 8 Traffic:**

Daytime:

- Match Stage 1 daytime configuration.

Nighttime:

- Northbound – Remains on normal daytime pattern.
- Southbound – Single Lane crossover for through traffic during Stage 8A and 8B.

**Stage 9 Traffic:**

Daytime:

- Match Stage 1 daytime configuration.

Nighttime:

- Northbound – Single Lane crossover for through traffic during Stage 9A and 9B. (2 Lane Closure Required in Illinois for Stages 9A and 9B).
- Southbound – Remains on normal shifted daytime pattern.



**Stage 10 Traffic:**

Daytime:

- Match Stage 1 daytime configuration.

Nighttime:

- Northbound – Single Lane crossover for through traffic during Stage 10A and 10B. (2 Lane Closure Required in Illinois for Stages 10A and 10B).
- Southbound – Remains on normal shifted daytime pattern.

**Stage 11 Traffic:**

Daytime:

- Match Stage 1 daytime configuration.

Nighttime:

- Northbound – Remains on normal daytime pattern.
- Southbound – Single Lane crossover for through traffic during Stage 11A and 11B.

**Stage 12 Traffic:**

Daytime:

- Match Stage 1 daytime configuration.

Nighttime:

- Northbound – Close interior through lane (2 lane closure in Illinois required). IL-75 entrance ramp and exterior through lane will remain on existing pattern.
- Southbound – Close shifted interior through lane. IL-75 exit ramp traffic to diverge from outer through lane.

Use drums, barricades, and flexible tubular markers to direct vehicular traffic in the work zone and to protect and delineate hazards such as open excavations and abrupt drop-offs.

Place roadway signing and roadway temporary pavement marking as detailed in the plans and in conformance to the Manual on Uniform Traffic Control Devices (MUTCD), latest edition. Traffic control shall be completely in place before traffic is switched, or as directed by the engineer.

Any traffic control device that is hit or moved out of place shall be replaced in the proper location within one hour of the engineer notifying the contractor of the problem.

Do not deliver or store materials and equipment within open travel lanes or open side roads during any stage of construction. Conduct operations in a manner that will cause the least interference to traffic.

At the end of each night-time working operation, provide a 6:1 or flatter slope behind the traffic control drums at the existing edge of pavement after excavation and prior to paving.

Coordinate with the State Patrol through Jeff Gustafson of the Wisconsin Department of Transportation Madison Office at (608) 516-6400 or jeffrey.gustafson@dot.wi.gov.

### **Definitions**

The following definitions apply to this contract:

### **IH 39/90 Night-time Work Hours**

DAY OF THE WEEK	PERMITTED LANE CLOSURE TIMES
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

DAY OF THE WEEK	FULL CLOSURE/ROLLING CLOSURE TIMES
Monday – Thursday	12:00 AM-5:00 AM; 11:00 PM-11:59 PM
Friday	12:00 AM-5:00 AM
Saturday – Sunday	12:00 AM-5:00 AM; 11:00 PM-11:59 PM

The times listed above include setup and breakdown of any equipment and traffic control devices. The times listed above include closures for IL-75 ramps.

### **Lane and Shoulder Closures**

Shoulder closures on this project are allowed with the exception of southbound IH 39/90 on Sundays from 12:00 PM – 7:00 PM and both northbound and southbound on Fridays from 4:00 PM – 6:00 PM.

Lane closures are required where discussed above under the stages of construction.

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

Shoulders may be closed if required by the work operation, but the right and left shoulder may not be closed in the same area at the same time, nor a right or left shoulder closure concurrently with an opposite side lane closure.

All lane and shoulder closures shall be removed when work is not in progress.

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.

### **Rolling Closures**

The rolling closures will last a maximum of 15 minutes. Rolling closures are allowed for a maximum of four nights for each project. This will involve stopping freeway traffic for a brief period and then allowing it to proceed behind a line of state patrol cars that will coordinate the procession with the construction crew at the site. The time for these stoppages shall be according to the permitted full closure/rolling closure times listed in the table in this article with the exception of holiday work restrictions.

Contractor operations shall not require state patrol cars to stop IH 39/90 traffic for more than the time described above. The department will allow this procedure for no more than the time specified above. 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 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 and the Rock 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 a fee assessment as specified under the Lane Rental Fee Assessment article in these special provisions.

Place Traffic Control Signs Portable Changeable Message for all lane and roadway closures as on the plans at least seven days prior to the lane or roadway closure.

### **Advance Notification**

Notify the organizations below 48 hours in advance of the start of work, closures of existing roads, and prior to traffic control changes. Notifications must be given by 4:00 PM on Thursday for such work to be done on the following Monday.

Town of Turtle Police Department  
William Brewer  
(608) 676-4998

Town of Turtle Fire Department  
Ron Splan  
(608) 289-8093

Advance notification as describe above is considered incidental to the Traffic Control (Project) bid item.

### **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 temporary precast barrier. The clear zone for IH 39/90 is 34 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.

### **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 PCM to obtain approval of the proposed message. The department will review the proposed message and either approve the message or make necessary changes.

### **Wisconsin Lane Closure System Advanced Notification**

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

#### **CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION**

Closure type with height, weight, or width restrictions (available width, all lanes in one direction $\leq 16'$ )	MINIMUM NOTIFICATION
Lane and shoulder closures	14 calendar days
Full roadway closures	14 calendar days
System and service ramp closures	14 calendar days
Full system and service ramp closures	14 calendar days
Detours	14 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
System and service 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.

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.

### **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.

### **Protection of Structures**

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

### **Construction Access**

All construction access is subject to approval of the engineer.

Restrict work on IH 39 within closed shoulders as allowed by the plans or engineer. All construction access is prohibited from live IH 39 lanes unless a single lane closure is in place and 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.

## **5. Lane Rental Fee Assessment.**

### **A Description**

This special provision describes Lane Rental Fee Assessment to enforce compliance of lane restrictions and discourage unnecessary closures.

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

The contract designates some lane closures to perform the work. No Lane Rental Fee Assessments will be charged for closing lanes during the permitted lane closure times. If a lane is closed outside of the permitted lane closure times, the contractor will be subject to Lane Rental Fee Assessments. If a lane is obstructed at any time due to contractor operations, it is considered a closure.

If the contractor closes lanes of traffic prior to or fails to open lanes of traffic by the specified time, then a reduction based upon 15-minute increments will be assessed to the contractor. The total reductions assessed to the contractor will be cumulative based on 15-minute increments and will be the summation of separate reductions for each traffic lane and each direction of traffic in violation.

The contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the permitted lane closure times. The contractor will not incur a Lane Rental Fee Assessment for closure of lanes during the permitted lane closure times. The permitted lane closure times are located in the Traffic article.

The contractor shall submit the dates of the proposed lane, ramp, and roadway restrictions to the engineer as part of the progress schedule. The contractor will 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, the contractor shall 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.

## **A.2 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:

\$2,500 per 15 minutes, per lane, per direction of travel.

The total reduction from monies due to the contractor shall be the summation of the separate reductions for each work restriction violation.

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

Lane Rental Fee Assessments will be made based on the applicable rate for any and all closures whether work is being performed or not. 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.

**B (Vacant)**

**C (Vacant)**

## **D Measurement**

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.

**E (Vacant)**

(3/15/2016)

## **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 noon Friday, September 2, 2016 to 6:00 AM Tuesday, September 6, 2016 for Labor Day;
- From noon Friday, May 26, 2017, to 6:00 AM Tuesday, May 30, 2017 for Labor Day;
- From noon Friday, June 30, 2017, to 6:00 AM Wednesday, July 5, 2017 for Independence Day.

107-005 (20050502)

## 7. Utilities.

This contract comes under the provision of Administrative Rule Trans 220.

107-065 (20080501)

There are several known underground and overhead 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, JULIE Illinois one call system, or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to ensure integrity of underground facilities and maintain code clearance from overhead facilities. Adjustments in the location of certain items may be necessary as directed by the engineer, when it becomes evident that a utility conflict could occur.

### **1003-10-74:**

**Alliant Energy** has facilities within the project limits. Prior to the start of construction new overhead facilities were installed along the south right-of-way of Creek Road for the entire length of the project. New poles were installed at:

Station ('CK')	Offset
1+89	35' RT
3+97	35' RT
6+06	34' RT
8+33	57' RT
10+65	82' RT
12+91	87' RT
14+44	91' RT
15+98	45' LT
19+11	99' RT
20+92	85' RT
22+72	72' RT
24+88	54.5' RT
27+00	39' RT



The field contact is:  
Jason Hogan  
(608) 458-4871  
[jasonhogan@alliantenergy.com](mailto:jasonhogan@alliantenergy.com)

**AT&T Wisconsin** has facilities within the project limits. Relocations will be completed prior to the start of construction. Facilities are located along the north side of Philhower Road from approximately Station 4+00 to Station 10+00, and along the west side of Patrick Road from the intersection with Philhower road, north to the project limits. The facilities will be located on average 3' off the new right-of-way line and are buried a minimum of 36" deep.

The field contact is:  
Carol Anason  
(608) 252-2385  
[ca2624@att.com](mailto:ca2624@att.com)

**Rock Energy Cooperative** has facilities within the project limits. Prior to the start of construction eight new poles will be installed at the proposed locations below:

Station	Offset
4+05'CK'	28' LT
6+10'CK'	35' LT
8+15'CK'	60' LT
10+20'CK'	70' LT
20+75'PT'	75' LT
22+65'PT'	70' LT
24+60'PT'	60' LT
26+55'PT'	45' LT

The field contact is:  
Lynn Maier  
(608) 752-4550  
[Lynnm@rock.coop](mailto:Lynnm@rock.coop)

### **1003-10-75:**

**Rock Energy Cooperative** has facilities within the project limits. Prior to the start of construction nine power poles with overhead electric cables will be relocated to the proposed locations below:

Utility Structure to be Relocated	Woodman Rd Stationing for New Location of Utility Structure	Offset (feet)
Power Pole	16+10WR	74.70
Power Pole	18+25WR	83.00
Power Pole	20+95WR	98.00
Power Pole	23+00WR	98.26
Power Pole	25+00WR	98.60
Power Pole	27+00WR	89.43
Power Pole	29+10WR	69.82
Power Pole	31+20WR	50.22
Power Pole	33+00WR	33.42

The contact information for Rock Energy Cooperative is as follows:

Rock Energy Cooperative  
Lynn Maier  
P.O. Box 1758  
Janesville, WI 53547-1758  
(608)752-4550  
[lynnm@rock.coop](mailto:lynnm@rock.coop)

The following utilities have facilities within the project limits but are not anticipated to be in conflict:

Alliant Energy  
Jason Hogan  
Suite 1000  
4902 N Biltmore Ln.  
Madison, WI 53511  
(608) 458-4871  
[jasonhogan@alliantenergy.com](mailto:jasonhogan@alliantenergy.com)

ATC Management, Inc.  
Mike Olsen  
801 O'Keefe Rd.  
P.O. Box 6113  
(920) 338-6582  
[molsen@atcllc.com](mailto:molsen@atcllc.com)

AT&T Wisconsin  
Carol Anason  
316 W. Washington Ave.  
Madison, WI 53703  
(608) 252-2385  
[ca2624@att.com](mailto:ca2624@att.com)

McLeod USA Telecommunication Services Inc.  
Nathan Becker  
13935 Bishops Dr.  
Brookfield, WI 53005  
(262) 792-7938  
[Nathan.becker@windstream.com](mailto:Nathan.becker@windstream.com)

**1003-10-77:**

There are no utility adjustments required for construction project 1003-10-77. Utilities within the project limits are as follows:

**Wisconsin Power & Light** has underground electric and gas facilities within the project limits at the following locations:

Underground gas facilities cross IH 39/90 at the following locations: Station 408+65, Station 437+60, and Station 437+95.

Underground electric facilities cross IH 39/90 at Station 380+60.

The field contact is:  
Jason Hogan  
Suite 1000  
4902 N. Biltmore Lane  
Madison, WI 53718  
(608) 458-4871  
[jasonhogan@alliantenergy.com](mailto:jasonhogan@alliantenergy.com)

**AT&T Wisconsin** has underground facilities within the project limits at the following locations:

There is a buried fiber optic cable crossing IH 39/90 at Station 350+35.

There is a buried telephone cable crossing IH 39/90 at Station 350+25.

The field contact is:  
Carol Anason  
316 W. Washington Avenue  
Madison, WI 53703  
608-252-2385  
[ca2624@att.com](mailto:ca2624@att.com)

**ATC Electric** has overhead electric facilities within the project limits at the following locations:

Overhead electric facilities cross IH 39/90 at Station 491+05.

The field contact is:

Mike Olsen  
801 O'Keefe Road  
P.O. Box 6113  
De Pere, WI 54115-6113  
(920) 338-6582  
[molsen@atcllc.gov](mailto:molsen@atcllc.gov)

**Rock Energy Cooperative** has overhead electric facilities within the project limits at the following locations:

Overhead electric facilities cross IH 39/90 at Station 441+00 and Station 543+15.

The field contact is:

Lynn Maier  
P.O. Box 1758  
Janesville, WI 53547-1758  
[lynnm@rock.coop](mailto:lynnm@rock.coop)

**1003-10-78:**

There are no utility adjustments required for construction project 1003-10-78. Utilities within the project limits are as follows:

**Wisconsin Power & Light** has underground electric and gas facilities within the project limits at the following locations:

Underground gas facilities cross IH 39/90 at Station 298+75.

Underground electric facilities cross IH 39/90 at the following locations: Station 183+40, Station 183+40, and Station 298+75.

The field contact is:

Jason Hogan  
Suite 1000  
4902 N. Biltmore Lane  
Madison, WI 53718  
(608) 458-4871  
[jasonhogan@alliantenergy.com](mailto:jasonhogan@alliantenergy.com)

**ANR Pipeline Company** has underground gas facilities within the project limits at the following locations:

Three underground gas facilities cross IH 39/90 between Station 246+50 and Station 248+00.

The field contact is:

Lawrence Huber  
W3925 Pipeline LN  
Eden, WI 53019  
(920) 477-2235

[lawrence\\_huber@transcanada.com](mailto:lawrence_huber@transcanada.com)

**AT&T Wisconsin** has underground facilities within the project limits at the following locations:

There is a buried telephone cable crossing IH 39/90 at Station 145+80.

The field contact is:

Carol Anason  
316 W. Washington Avenue  
Madison, WI 53703  
(608) 252-2385

[ca2624@att.com](mailto:ca2624@att.com)

**ATC Electric** has overhead electric facilities within the project limits at the following locations:

Overhead electric facilities cross IH 39/90 at Station 202+00.

The field contact is:

Mike Olsen  
801 O'Keefe Road  
P.O. Box 6113  
De Pere, WI 54115-6113  
(920) 338-6582

[molsen@atcllc.gov](mailto:molsen@atcllc.gov)

**The City of Beloit** has underground water main and sanitary sewer facilities within the project limits at the following locations:

Underground water main facilities cross IH 39/90 at Station 200+00.

Underground sanitary sewer facilities cross IH 39/90 at: Station 128+50, Station 150+30, Station 200+50, and Station 267+00.

The field contact is:  
Michael Flesch  
100 State Street  
Beloit, WI 53511  
(608) 364-6696

**Charter Communications** has underground facilities within the project limits at the following locations:  
There is a buried fiber optic cable crossing IH 39/90 at Station 298+75.

The field contact is:  
Brandon Storm  
2701 Daniels Street  
Madison, WI 53718  
(608) 274-3822

**1003-10-82:**

There are no utility adjustments required for construction project 1003-10-82. Utilities within the project limits are as follows:

**Illinois State Toll Highway Authority (ISHTA)**  
Approximately 200 feet of ISHTA fiber was relocated in advance of this project.

**G4S Technologies – ISTHA Fiber Optic**  
Cecil Kuhse  
565 Willowbrook Centre Parkway  
Willowbrook, IL 60527  
(630) 920-1488  
[Cecil.kuhse@usa.g4s.com](mailto:Cecil.kuhse@usa.g4s.com)

**AT&T Wisconsin**  
Carol Anason  
316 W Washington Ave.  
Madison, WI 53703  
(608) 252-2385  
[ca2624@att.com](mailto:ca2624@att.com)

**Alliant Energy-Electricity and Gas/Petroleum**  
Jason Hogan  
Suite 1000  
4902 N Biltmore Ln.  
Madison, WI 53511  
(608)458-4871  
[jasonhogan@alliantenergy.com](mailto:jasonhogan@alliantenergy.com)

**ANR Pipeline Company**

Lawrence Huber  
W3925 Pipeline Ln  
Eden, WI 53019  
(920) 477-2235  
[lawrence\\_huber@transcanada.com](mailto:lawrence_huber@transcanada.com)

**Rock Energy Cooperative**

Lynn Maier  
P.O. Box 1758  
Janesville, WI 53547-1758  
(608) 752-4550  
[lynnm@rock.coop](mailto:lynnm@rock.coop)

**Illinois State Toll Highway Authority-Utility Administrator**

Patricia Mathez  
2700 Ogden Avenue.  
Downers Grove, IL 60515  
(630) 241-6800 Ext. 3306  
[pmathez@getipass.com](mailto:pmathez@getipass.com)

**Illinois State Toll Highway Authority-Communication Line**

Joe Musso  
Illinois Tollway -- ITS  
2700 Ogden Ave  
Downers Grove, IL 60515  
(630) 241-6800 Ext. 3810  
[jmusso@getipass.com](mailto:jmusso@getipass.com)

**Illinois Department of Transportation Region 2/District 2 – Street Lighting**

Scott Kullerstrand  
819 Depot Ave.  
Dixon, IL 61021  
(815) 284-5468  
[skullerstrand@getipass.com](mailto:skullerstrand@getipass.com)

**8. 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.

<b>Workshop</b>	<b>Timeframe</b>
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."

(7/14/2014)

#### **General Information**

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

- 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 and Submittals**

The Cost Reduction Incentive (CRI) and 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 and submittal reviews. The workshop participants will at a minimum:

- Review the project special provisions.
- Categorize submittals into functional areas including but not limited to:
  - MSE Retaining Walls
  - Temporary Shoring
  - Falsework and Formwork
  - Girder Shop Drawings
  - 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
- Develop a schedule for submittals.

#### **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.

- 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)
- 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 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:

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

(7/14/2014)

### **9. 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)

### **10. Public Convenience and Safety.**

*Revise standard spec 107.8(6) as follows:*

Check for and comply with local ordinances governing the hours of operation of construction equipment. Construction operations will be allowed at night with the exception of the following operations: Do not perform pile driving between 10:00 PM and 6:00 AM.  
107-001 (20060512)

## **11. Other Contracts.**

Other contracts scheduled for concurrent construction are as follows:

Project 1003-10-83, IH 39/90 Temporary Widening (STH 11 to CTH O)

Project 1003-10-72: STH 11 Avalon Road Interchange

Project 1003-10-73: Hart Road Bridge/Approaches

Project 3621-10-76: Hart Road, CTH S to CTH X

## **12. 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 UPR.

Notify evidence of the required coverage, and duration to John Venice at (312) 777-2043, 101 North Wacker Drive – Suite 1920, Chicago, Illinois 60606. Include the following information on the insurance document:

Project 1003-10-77  
Route Name I-39 (CTH S to STH 11), 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**

Contact John Venice, Manager Special Projects – Industry & Public Projects Engineering Department, 101 North Wacker Drive – Suite 1920, Chicago, IL 60606, TELEPHONE (312) 777-2043, FAX (402) 233-2769, email [jnvenice@up.com](mailto: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.

#### **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**

Approximately 0 passenger trains and 3 through freight trains operate daily through the construction site. Passenger trains operate at up to 0 mph. Through freight trains operate at up to 20 mph. 3 switching train movements occur daily just west of the crossing.

#### **A.6 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.

### **13. Erosion Control.**

The contractor shall submit, for approval, a detailed plan and schedule of construction operations for accomplishing temporary and permanent erosion control as provided in standard spec 107.20. The contractor shall submit his ECIP a minimum of 14 days prior to the preconstruction meeting. The contractor shall construct this project in such a manner that will cause minimal erosion.

*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 stormwater runoff flow down the slopes. Upslope tracking is incidental to the cost of grading.

*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.

## 14. Driven Piles.

*Replace standard spec 550.2.1 (3) with the following:*

For steel pipe sections and steel pile shells for cast-in-place concrete piles, use ASTM A 252 grade 3 steel or an engineer-approved alternate.

## 15. Concrete Pavements.

This special provision describes specialized material requirements for aggregates used in Concrete Pavements. Conform to standard specs 415 and 501, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement and Structures.

*Replace 501.2.5.4.1 with the following:*

### 501.2.5.4.1 General

Provide coarse aggregates from a department-approved source as specified under standard spec 106.3.4.2.

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.

Use virgin aggregates only.

*Replace the first paragraph of standard spec 501.2.5.4.2 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 <sup>[1]</sup> .....	2.5

<sup>[1]</sup>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 a 3/8-inch sieve by the weight of the total sample.

*Replace the first paragraph of standard spec 501.2.5.4.3 with the following:*

- 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.
- (1/7/2016)

## **16. 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 will correspond with the following FHWA and department staff to obtain concurrence:

- Johnny Gerbitz, FHWA, [Johnny.Gerbitz@dot.gov](mailto:Johnny.Gerbitz@dot.gov)
- Rich Cannon, I-39 CMT Traffic, [Richard.Cannon@dot.wi.gov](mailto:Richard.Cannon@dot.wi.gov)
- Jeff Gustafson, I-39 CMT Traffic, [Jeffrey.Gustafson@dot.wi.gov](mailto:Jeffrey.Gustafson@dot.wi.gov)

(8/12/2014)



## **17. 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 will correspond with the following FHWA and department staff for concurrence:

- Johnny Gerbitz, FHWA, [Johnny.Gerbitz@dot.gov](mailto:Johnny.Gerbitz@dot.gov)
- Rich Cannon, I-39 CMT Traffic, [Richard.Cannon@dot.wi.gov](mailto:Richard.Cannon@dot.wi.gov)
- Jeff Gustafson, I-39 CMT Traffic, [Jeffrey.Gustafson@dot.wi.gov](mailto: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.

(8/12/2014)

## 18. Notice to Contractor – Airport Operating Restrictions.

### 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 5 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](mailto: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 Restrictions

Project ID	Structure	Location	Latitude	Longitude	Heights	Issue Date	Expiration Date	Aeronautical Study No.
1003-10-74	Crane (Temporary for B-53-316)	Creek Road Overpass	42-34-06 N NAD 83	88-58-50 W	160 feet AGL 837 feet AMSL	Xx/xx/xxxx	Xx/xx/xxxx	2016-AGL-5408-OE
1003-10-75	Crane (Temporary for B-53-319)	Woodman Rd Overpass	42-36-47 N NAD 83	88-58-57 W	160 feet AGL 1010 feet AMSL	9/18/2014	8/12/2017	2014-AGL-10067-OE
1003-10-82	Crane (Temporary for B-53-325)	Stateline Rd Overpass	42-29-47 N NAD 83	88-59-34 W	160 feet AGL 985 feet AMSL	9/19/2014	10/27/2016	2014-AGL-10069-OE

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.

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.

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

For ID 1003-10-82, notify the manager of Beloit Airport (44C) at (773) 914-9938 at least three business days prior to any temporary structure being erected and again when the temporary structure is removed from the site.

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)

## **19. Notice to Contractor - Construction Safety.**

### **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 (OECF).

**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 (OECF) 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]
  - v. Emergency escape procedures and emergency escape route assignments
  - vi. Procedures to be followed by employees who remain to operate critical equipment before they evacuate
  - vii. Procedures to account for all employees after emergency evacuation has been completed
  - viii. 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.
  - ix. The preferred means of reporting fires and other emergencies
  - x. Prime contractor’s alarm system

- xi. 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]

(1/25/2016)

## **20. Notice to Contractor, Notification of Demolition and/or Renovation No Asbestos Found.**

### **1003-10-74:**

Structure B-53-41 was inspected for asbestos between 12/5/05 and 12/7/05. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report, dated January 10, 2006 is available from: Jennifer Grimes at (608) 884-1147.

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, (608) 884-1174, 111 Interstate Blvd., Edgerton, WI 53534 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: Structure B-53-41, Creek Road over IH 39 northbound/90 eastbound
- Site Address: 2.7 miles east of junction USH 51
- Ownership Information: 6916 S County Road J, Beloit, WI 53511-8964
- Contact: Wayne Chase
- Phone: (608) 884-1224
- Age: 57 years old. This structure was constructed in 1959.
- Area: 7,546 SF of deck

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)



### **1003-10-75:**

John Roelke, License Number AII-119523, inspected Structure B-53-38 for asbestos on December 5-7, 2005. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes at (608) 884-1147.

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 Stephen P. Marshall, WisDOT I-39/90 Project Manager, 2101 Wright St., Madison, WI 53704, (608) 246-5350, 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: Structure B-53-38, Woodman Road over IH 39.
- Site Address: Section 20, Town 02N, Range: 13E, Latitude 42°36'46.73"N, Longitude 88°58'58.14"W, Town of La Prairie, Rock County.
- Ownership Information: WisDOT Southwest Region, 2101 Wright St., Madison, WI 53704.
- Contact: Wayne Chase
- Phone: (608) 884-1224
- Age: 58 years old. This structure was constructed in 1958.
- Area: 5726 SF of deck

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.

### **1003-10-82:**

James Gondek, License Number AII-108099, inspected Structure B-53-204 for asbestos on 12/5/05. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes at (608) 884-1147.

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 Steve Marshall, (608) 884-7134

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: Structure B-53-204, Stateline Road over IH 39 northbound/90 eastbound
- Site Address: 1.3 miles east of junction USH 51
- Ownership Information: 6916 S County Road J, Beloit, WI 53511-8964
- Contact: Wayne Chase
- Phone: (608) 884-1224
- Age: 17 years old. This structure was constructed in 1999.
- Area: 8951 SF of deck

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)

## **21. Hauling Restrictions.**

Prior to hauling any material, submit a hauling plan to the engineer that includes the route hauling vehicles will use and the effect those vehicles will have on traffic. No hauling can take place without the approval of the engineer.

Equip all vehicles traveling on roadways carrying interstate traffic that are involved in hauling removals, aggregates or other construction materials subject to spillage, either by wind or vibration with a tailgate and adequate sideboards. Use canvas covers and other protective devices to prevent spillage as determined necessary by the engineer.

Immediately remove all debris or spillage falling into the live lanes or shoulders of the interstate roadway or its ramps and loops.

## **22. Clearing and Grubbing, Items 201.0105, and 201.0205.**

*Supplement standard spec 201.3 with the following:*

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 (fluorescent 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**

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

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

- 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.
- 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.

- Regulated items.

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

- The emerald ash borer, *Agrilus planipennis* Fairmaire in any living stage.
- Ash trees.
- Ash limbs, branches, and roots.
- Ash logs, slabs or untreated lumber with bark attached.
- Cut firewood of all non-coniferous species.
- Ash chips and ash bark fragments (both composted and uncomposted) larger than one inch in diameter.
- 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**

- 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.
- May be buried on site within the right-of-way according to standard spec 201.3 (14).
- 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).
- May be trucked to a licensed landfill within the quarantined zone with the engineer's approval according to standard spec 201.3 (15).
- 

The contractor shall not remove vegetation within the entire roadway right-of-way where Clearing and Grubbing is shown on the plans. The contractor shall only remove vegetation within 6 to 8 feet of the slope intercept to provide sufficient work space during construction. The contractor shall take care to preserve vegetation beyond the required work space since the existing vegetation provides snow drifting benefits.

## **23. Debris Containment B-53-41, Item 203.0225.S.001; B-53-204, Item 203.0225.S.002; B-53-38, Item 203.0225.S.003.**

### **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 IH 39/90 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 repair, 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. B-53-41, B-53-204  
Wayne Chase, SW Region Construction Supervisor  
Phone: (608) 884-1224
2. B-53-38:  
Stephen P. Marshall  
WisDOT I-39/90 Project Manager  
111 Interstate Blvd.  
Edgerton, WI 53534  
Phone: (608) 884-7134  
[steve.marshall@dot.wi.gov](mailto:steve.marshall@dot.wi.gov)

### **D Measurement**

The department will measure Debris Containment (Structure) 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 item:

ITEM NUMBER	DESCRIPTION	UNIT
203.0225.S.001	Debris Containment B-53-41	LS
203.0225.S.002	Debris Containment B-53-204	LS
203.0225.S.003	Debris Containment B-53-38	LS

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

203-010 (20080902)

## **24. Removing Concrete Surface Partial Depth, Item 204.0109.S.**

### **A Description**

This special provision describes removing a portion of the concrete surfaces as shown on the plans according to standard spec 204, and as hereinafter provided.

### **B (Vacant)**

### **C Construction**

#### **C.1 Equipment**

Use a machine that provides a surface finish acceptable to the engineer. Shroud the machine to prevent discharge of any loosened material into adjacent work areas or live traffic lanes.

Use a machine that is equipped with electronic devices that provide accurate depth, grade and slope control, and acceptable dust control system.

#### **C.2 Methods**

Remove existing concrete to the depths as shown on the plan by grinding, planning, chipping, sawing, milling, or by using other methods approved by the engineer.

Perform the removal operation in such a manner as to preclude damage to the remaining pavement and results in a reasonable uniform plane surface free of excessive large scarification marks and having a uniform transverse slope.

The sequence of removal operations shall be such that no exposed longitudinal joints 2 inches or more in depth remain during non-working hours. Windrowing or storing of the removed material on the roadway will only be permitted in conjunction with a continuous removal and pick-up operation. During non-working hours, clear the roadway of all materials and equipment.

The removed pavement shall become the property of the contractor. Properly dispose of it according to standard spec 204.3.1.3.

### **D Measurement**

The department will measure Removing Concrete Surface Partial Depth in area by the square foot of surface area, removed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0109.S	Removing Concrete Surface Partial Depth	SF

Payment is in full compensation for removing the concrete; and for disposing of materials.

204-041 (20080902)

## **25. Removing Apron Endwall, Item 204.9060.S.001.**

### **A Description**

This special provision describes removing Apron Endwall 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 Endwall as each individual apron endwall, acceptably completed.

### **E Payment**

*Add the following to standard spec 204.5:*

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.001	Removing Apron Endwall	Each

204-025 (20150630)

## **26. Roadway Excavation.**

*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.  
(6/29/2015)

## **27. 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.

*Replace standard spec 208.4 with the following:*

The department will not measure embankment material from its source.

*Replace standard spec 208.5 with the following:*

The department will not pay directly for work specified under this section. This work is incidental to the Roadway Embankment bid item.

(4/15/2015)

**28. 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.

**29. 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	2 - 12 <sup>[1], [2]</sup>

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

<sup>[2]</sup> 3 - 10 percent passing when base is ≥ 50% crushed gravel

**30. 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 under the Aggregate Detours, Salvaged Asphaltic Pavement Base, 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-rsrcs/rdwy/default.aspx>

### **A.2 Contractor Testing for Small Quantities**

- (1) The department defines a small quantity, for each individual Base Aggregate bid item, as a plan 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:
  1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.
  2. Divide the aggregate into uniformly sized sublots for testing as follows:

<b>Plan Quantity</b>	<b>Minimum Required Testing</b>
≤ 1500 tons	One test from production, load-out, or placement at the contractor's option <sup>[1]</sup>
> 1500 tons and ≤ 6000 tons	Two tests of the same type, either from production, load-out, or placement at the contractor's option <sup>[1]</sup>
> 6000 tons and ≤ 9000 tons	Three placement tests <sup>[2] [3]</sup>

- [1] If using production tests for acceptance, submit 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] For 3-inch material, obtain samples at load-out.
  - [3] If the actual quantity overruns 9000 tons, create overrun sublots to test at a rate of one additional placement test for each 3000 tons, or fraction of 3000 tons, of overrun.
  - 3. No control charts are required. 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. Department verification testing is optional for quantities of 6000 tons or less.
- (3) Material represented by a subplot 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.

## **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:

<b>Required Certification Level:</b>	<b>Sampling or Testing Roles:</b>
Aggregate Technician IPP Aggregate Sampling Technician Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Sampling <sup>[1]</sup>
Aggregate Technician IPP Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Gradation Testing, Aggregate Fractured Particle Testing, Aggregate Liquid Limit and Plasticity Index Testing

<sup>[1]</sup> 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://wisconsin.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/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 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. 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 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. 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 tests, include only QC 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) Test gradation once per 3000 tons of material placed. 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 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.
- (3) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.
- (4) The engineer may require additional sampling and testing to evaluate suspect material or the technician's sampling and testing procedures.
- (5) 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.
- (6) 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 4 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 4 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. One non-random test on the first day of 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, the department will collect samples from the stockpile 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 by 10 percent of the contract price 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.

301-010 (20151210)



31. **SPECIAL** HMA Pavement 3 LT 58-28 S, Item 460.5223; HMA Pavement 4 LT 58-28 S, Item 460.5224; HMA Pavement 2 HT 58-28 S, Item 460.7222; HMA Pavement 3 HT 58-28 S, Item 460.7223; HMA Pavement 3 HT 58-28 H, Item 460.7423; HMA Pavement 4 HT 58-28 H, Item 460.7424.

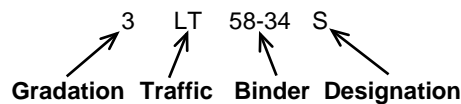
#### A Description

This special provision describes providing HMA pavement including the binder under a combined bid item. The aggregate requirements are revised from the standard STSP. Modifications to the STSP are highlighted in yellow (may appear as gray shaded in hard copy prints).

Define gradations, traffic levels, and asphaltic binder designation levels as follows:

<u>GRADATIONS</u> (NMAS)		<u>TRAFFIC VOLUME</u>		<u>DESIGNATION LEVEL</u>	
1	37.5 mm	LT	Low	S	Standard
2	25.0 mm	MT	Medium	H	Heavy
3	19.0 mm	HT	High	V	Very Heavy
4	12.5 mm			E	Extremely Heavy
5	9.5 mm				
6	4.75 mm				

Construct HMA pavement of the type the bid item indicates encoded as follows:



Conform to standard spec 460 as modified in this special provision.

#### B Materials

Replace standard spec table 460-1 with the following to change the footnotes to refer to LT and MT mixes instead of E-0.3 and E-3 mixes:

**TABLE 460-1: AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS**

SIEVE	PERCENTS PASSING DESIGNATED SIEVES						
	NOMINAL SIZE						
	37.5 mm (#1)	25.0 mm (#2)	19.0 mm (#3)	12.5 mm (#4)	9.5 mm (#5)	SMA 12.5 mm (#4)	SMA 9.5 mm (#5)
50.0-mm	100						
37.5-mm	90 – 100	100					
25.0-mm	90 max	90 - 100	100				
19.0-mm	_____	90 max	90 - 100	100		100	
12.5-mm	_____	_____	90 max	90 - 100	100	90 - 97	100
9.5-mm	_____	_____	_____	90 max	90 - 100	58 - 72	90 - 100
4.75-mm	_____	_____	_____	_____	90 max	25 - 35	35 - 45
2.36-mm	15 – 41	19 - 45	23 - 49	28 - 58	20 - 65	15 - 25	18 - 28
75-µm	0 – 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	8.0 - 12.0	10.0 - 14.0
% MINIMUM VMA	11.0	12.0	13.0	14.0 <sup>[1]</sup>	15.0 <sup>[2]</sup>	16.0	17.0

<sup>[1]</sup> 14.5 for LT and MT mixes

<sup>[2]</sup> 15.5 for LT and MT mixes

*Replace standard spec table 460-2 with the following to*

- switch from E mixes to LT, MT, and HT mixes*
- change the tensile strength ratio requirements to 0.75 without antistripping additive and 0.80 with antistripping additive*
- change the LA Wear 500 revolutions requirements to 40% maximum loss*
- change the soundness requirements to 9.0% loss maximum*
- change the freeze/thaw requirements to 12% maximum loss*
- change Note 3 specified VFB range to 73-76%*

**TABLE 460-2: MIXTURE REQUIREMENTS**

Mixture type	LT	MT	HT	SMA
ESALs x 10 <sup>6</sup> (20 yr design life)	<2.0	2 - <8	>8	> 5 mil
LA Wear (AASHTO T96)				
100 revolutions(max % loss)	13	13	13	13
500 revolutions(max % loss)	40	40	40	40
Soundness (AASHTO T104) (sodium sulfate, max % loss)	9.0	9.0	9.0	9.0
Freeze/Thaw (AASHTO T103) (specified counties, max % loss)	12	12	12	12
Fractured Faces (ASTM 5821) (one face/2 face, % by count)	65/ —	75 / 60	98 / 90	100/90

Mixture type	LT	MT	HT	SMA
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1 ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40	43	45	45
Sand Equivalency (AASHTO T176, min)	40	40	45	50
Gyratory Compaction				
Gyrations for Nini	6	7	8	8
Gyrations for Ndes	40	75	100	65
Gyrations for Nmax	60	115	160	160
Air Voids, %Va (%Gmm Ndes)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)
% Gmm Nini	<= 91.5 <sup>[1]</sup>	<= 89.0 <sup>[1]</sup>	<= 89.0	—
% Gmm Nmax	<= 98.0	<= 98.0	<= 98.0	—
Dust to Binder Ratio <sup>[2]</sup> (% passing 0.075/Pbe)	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80 <sup>[4] [5]</sup>	65 – 75 <sup>[3] [4]</sup>	65 - 75 <sup>[3] [4]</sup>	70 - 80
Tensile Strength Ratio (TSR) (ASTM 4867)				
no antistripping additive	0.75	0.75	0.75	0.75
with antistripping additive	0.80	0.80	0.80	0.80
Draindown at Production Temperature (%)	—	—	—	0.30

<sup>[1]</sup> The percent maximum density at initial compaction is only a guideline.

<sup>[2]</sup> For a gradation that passes below the boundaries of the caution zone (ref. AASHTO MP3), the dust to binder ratio limits are 0.6 - 1.6.

<sup>[3]</sup> For #5 (9.5mm) and #4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 73 - 76%.

<sup>[4]</sup> For #2 (25.0mm) nominal maximum size mixes, the specified VFB lower limit is 67%.

<sup>[5]</sup> For #1 (37.5mm) nominal maximum size mixes, the specified VFB lower limit is 67%.

*Replace standard spec 460.2.8.2.1.7 paragraph six with the following to base payment adjustment on the combined bid item unit price:*

(6) The department will reduce payment for nonconforming QMP HMA mixtures, starting from the stop point to the point when the running average is back inside the warning limits, as follows:

<b>PAYMENT FOR MIXTURE<sup>[1] [2]</sup></b>		
ITEM	PRODUCED WITHIN	PRODUCED OUTSIDE
	WARNING BANDS	JMF LIMITS
Gradation	90%	75%
Asphalt Content	85%	75%
Air Voids	70%	50%
VMA	90%	75%

<sup>[1]</sup>For projects or plants where the total production of each mixture design requires less than 4 tests refer to CMM 8-36.

<sup>[2]</sup>Payment is in percent of the contract unit price for the HMA Pavement bid item. The department will reduce pay based on the nonconforming property with lowest percent pay. The department will administer pay reduction under the Nonconforming QMP HMA Mixture administrative item.

## C Construction

Replace standard spec table 460-3 with the following to switch from E mixes to LT, MT, and HT mixes:

**TABLE 460-3: MINIMUM REQUIRED DENSITY<sup>[1]</sup>**

LOCATION	LAYER	PERCENT OF TARGET MAXIMUM DENSITY		
		MIXTURE TYPE		
		LT AND MT	HT	SMA <sup>[5]</sup>
TRAFFIC LANES <sup>[2]</sup>	LOWER	91.5 <sup>[3]</sup>	92.0 <sup>[4]</sup>	_____
	UPPER	91.5	92.0	_____
SIDE ROADS, CROSSOVERS, TURN LANES, & RAMPS	LOWER	91.5 <sup>[3]</sup>	92.0 <sup>[4]</sup>	_____
	UPPER	91.5	92.0	_____
SHOULDERS & APPURTENANCES	LOWER	89.5	89.5	_____
	UPPER	90.5	90.5	_____

<sup>[1]</sup> 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.

<sup>[2]</sup> Includes parking lanes as determined by the engineer.

<sup>[3]</sup> Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

<sup>[4]</sup> Minimum reduced by 1.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

<sup>[5]</sup> The minimum required densities for SMA mixtures are determined according to CMM 8-15.

## D Measurement

Add the following to standard spec 460.4:

The department will measure HMA Pavement (type) conforming to standard spec 460.4.

## **E Payment**

*Add the following to standard spec 460.5 to switch from E mixes to LT, MT, and HT mixes; to combine the pavement and binder bid items; and to specify a pay reduction for pavement placed with nonconforming binder:*

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

ITEM NUMBER	DESCRIPTION	UNIT
460.5223	HMA Pavement 3 LT 58-28 S	TON
460.5224	HMA Pavement 4 LT 58-28 S	TON
460.7222	HMA Pavement 2 HT 58-28 S	TON
460.7223	HMA Pavement 3 HT 58-28 S	TON
460.7423	HMA Pavement 3 HT 58-28 H	TON
460.7424	HMA Pavement 4 HT 58-28 H	TON

Payment is full compensation for providing HMA Pavement including asphaltic binder.

In addition to any pay adjustment under standard spec 460.2.8.2.1.7(6), the department will adjust pay for nonconforming binder under the Nonconforming QMP Asphaltic Material administrative item. The department will deduct 25 percent of the contract unit price of the HMA Pavement bid item per ton of pavement placed with nonconforming PG binder the engineer allows to remain in place.

(03/31/2016)

## **32. 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 Correlation of Nuclear Gauges**

##### **B.3.2.1 Correlation 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 correlation process. The section does not have to be the same mix design.

- (2) Correlate the 2 or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the correlation 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/ft<sup>3</sup>. 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/ft<sup>3</sup> and repeat correlation process from B.3.2.1 (2).
- (5) Furnish one of the QC gauges passing the allowable correlation tolerances to perform density testing on the project.

#### **B.3.2.2 Correlation Monitoring**

- (1) After performing the gauge correlation 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 correlation 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/ft<sup>3</sup> 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/ft<sup>3</sup> 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 subplot 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 subplot of the lane. If a resulting partial quantity at the end of the project is 750 lane feet or more, create a separate subplot for that partial quantity.
- (5) Randomly select test locations for each subplot 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.

<b>Lane Width</b>	<b>No. of Tests</b>	<b>Transverse Location</b>
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 subplot 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 subplot and perform the number of random tests as specified in Table 2.

<b>Side Roads, Turn Lanes, Crossovers, Ramps, Roundabouts: Sublot/Layer tonnage</b>	<b>Minimum Number of Tests Required</b>
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 subplot densities using the individual test results in each subplot.



- (2) If all subplot 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 subplot average is more than one percent below the target density, do not include the individual test results from that subplot when computing the lot average density and remove that subplot's tonnage from the daily quantity for incentive. The tonnage from any such subplot 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 subplot 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 subplot 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 subplot. Testing in a previously accepted subplot 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 subplot 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 subplot and lot densities.
- (6) If 2 consecutive subplot 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 subplot 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 subplot using the same testing requirements and frequencies as the QC tester.
- (3) If the verification subplot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.
- (4) If the verification subplot average is more than one percent below the specified target density, compare the QC and QV subplot averages. If the QV subplot average is within 1.0 lb/ft<sup>3</sup> of the QC subplot average, use the QC tests for acceptance.
- (5) If the first QV/QC subplot average comparison shows a difference of more than 1.0 lb/ft<sup>3</sup> each tester will perform an additional set of tests within that subplot. Combine the additional tests with the original set of tests to compute a new subplot average for each tester. If the new QV and QC subplot averages compare to within 1.0 lb/ft<sup>3</sup>, use the original QC tests for acceptance.
- (6) If the QV and QC subplot averages differ by more than 1.0 lb/ft<sup>3</sup> 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 correlation according to B.3.2.1.
- (2) The testers may use correlation 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 subplot density test results or retesting of the subplot 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-correlated 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) Delete standard spec 460.5.2.3.

- (2) If the lot density is greater than the minimum specified in standard spec table 460-3 and all individual air voids test results for that mixture are within +1.0 percent or -0.5 percent of the design target in standard spec table 460-2, the department will adjust pay for that lot as follows:

<b>Percent Lot Density Above Minimum</b>	<b>Pay Adjustment Per Ton</b>
From -0.4 to 1.0 inclusive	\$0
From 1.1 to 1.8 inclusive	\$0.40
More than 1.8	\$0.80

- (3) The department will adjust pay under the Incentive Density HMA Pavement bid item. Adjustment under this item is not limited, either up or down, to the bid amount shown on the schedule of items.
- (4) If a traffic lane meets the requirements for disincentive, the department will not pay incentive on the integrally paved shoulder.
- (5) Submit density results to the department electronically using the MRS software. The department will validate all contractor data before determining pay adjustments.  
460-020 (20100709)

### **33. Aggregate Quality Testing for Concrete Pavement and HPC Structure Mixes.**

#### **A Description**

This provision describes additional requirements for testing the quality of coarse aggregates being used in concrete mixes for pavements and HPC structures.

Conform to the standard specifications and high-performance concrete provisions contained within the contract, as modified in this provision.

#### **B Materials**

##### **B.1 Personnel**

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

##### **B.2 Laboratory**

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

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

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

### **B.3 Equipment**

Furnish the necessary equipment and supplies for performing quality control testing. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

### **B.4 Records**

Document all observations, inspection records, and test results. Submit testing records to the engineer.

### **B.5 Contractor Testing**

Perform all quality control tests necessary to control the production processes applicable to this special provision. Use the test methods identified below, or other methods the engineer approves, to perform the following tests:

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 <sup>[1]</sup> .....	AASHTO T 113

<sup>[1]</sup>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.

The department may periodically observe contractor sampling and testing, and direct additional contractor sampling and testing for department evaluation. Ensure that all test results are available for the engineer's review at any time during normal working hours.

In addition to the requirements of standard spec 106.3.4.2.2, perform tests for LA wear, sodium sulfate soundness, freeze-thaw soundness and lightweight pieces at least once per calendar year when producing coarse aggregates for use in concrete pavement or HPC structure concrete mixes.

Randomly test the percentage of lightweight pieces at least once per 10,000 tons during production of coarse aggregates to be used in concrete pavement and HPC structure mixes or at least once per 10,000 cubic yards during placement of concrete pavement.

### **B.6 Department Testing**

The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will sample randomly at locations independent of the contractor's QC work. In all cases, the department will conduct the verification tests with separate personnel and equipment from the contractor's QC tests. The department will perform verification testing of lightweight pieces at a frequency of 10 percent of the random quality control tests or a minimum of once per project, or at greater frequency if determined to be necessary by the engineer.

**C (Vacant)**

**D (Vacant)**

**E Payment**

Costs for furnishing 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.  
(1/7/2016)

**34. Temporary Shoring Left In Place B-53-56.**

*Replace the third sentence in standard spec 511.2(1) with the following:*

<sup>(1)</sup> Design to address all limit states using a design life of 120 months.

**35. Concrete Staining B-53-316, Item 517.1010.S.001; B-53-325, Item 517.1010.S.002; B-53-319, Item 517.1010.S.003.**

**A Description**

Furnish and apply a two coat concrete stain to the exposed concrete surfaces of the structure, as detailed in the plans and as hereinafter provided.

**B Materials**

**B.1 Mortar**

Use mortar for sack rubbing the concrete surfaces as given in standard spec 502.3.7.5 or use one of the following products:

Preblended, Packaged Type II Cement:      Tri-Mix by TK Products  
   Thoroseal Pearl Gray by Thoro Products

The mortar shall contain one of the following acrylic bonding admixtures mixed and applied according to manufacturer's recommendations:

Acrylic Bonding Admixture:      TK-225 by TK Products  
   Achro 60 by Thoro Products  
   Achro Set by Master Builders

**B.2 Concrete Stain**

Use concrete stain manufactured for use on exterior concrete surfaces, consisting of a base coat and a pigmented sealer finish coat. Use the following products, or equal as approved by the department, as part of the two coat finish system:

Tri-Sheen Concrete Surfer, Smooth by TK Products  
Tri-Sheen Acrylic by TK Products  
TK-1450 Natural Look Urethane Anti-Graffiti Primers by TK Products  
Safe-Cure & Seal EPX by Chem Masters  
H&C Concrete Stain Solid Color Water Based by Sherwin-Williams

## **C Construction**

### **C.1 General**

Furnish, prepare, apply, cure, and store all materials according to the product manufacturer's specifications for the type and condition of application required.

Match or exceed the stain manufacturer's minimum recommended curing time of the concrete or 28 days, whichever is greater, prior to staining.

### **C.2 Preparation of Concrete Surfaces**

Provide a sack rubbed finish according to standard spec 502.3.7.5, using mortar as indicated above on concrete surfaces with open voids or honeycombing.

Following the sack rubbing, clean all concrete surfaces that are to be coated to ensure that the surface is free of all laitance, dirt, dust, grease, efflorescence, and any foreign material and that the surface will accept the coating material according to product requirements. As a minimum, clean the surface using a 3000-psi water blast. Hold the nozzle of the water blaster approximately 6 inches from the concrete surface and move it continuously in a sweeping motion. Give special attention to smooth concrete surfaces to produce an acceptable surface texture. Correct any surface problems resulting from the surface preparation methods. Grit blasting of the concrete surface is not allowed.

### **C.3 Staining Concrete Surfaces**

Apply the concrete stain according to the manufacturer's recommendations.

Apply the concrete stain when the temperature of the concrete surface is 45° F or higher, or as given by the manufacturer.

The color of the stain shall be as given on the plan. Tint the base coat to match the finish coat; the two coats shall be compatible with each other.

Do not begin staining the structure until earthwork operations are completed to a point where this work can begin without receiving damage. Where this work is adjacent to exposed soil or pavement areas, provide temporary covering protection from overspray or splatter.

### **C.4 Test Areas**

Prior to applying stain to the structure, apply the stain to sample panels measuring a minimum of 48-inches x 48-inches and constructed to demonstrate workmanship in the use of the form liner specified on the structure if applicable. Match or exceed the stain manufacturer's minimum recommended curing time of the concrete or 28 days, whichever is greater, prior to staining. Prepare the concrete surfaces of the sample panels and apply

stain using the same materials and in the same manner as proposed for the structure, including staining of the joints between the stones produced by the form liner if applicable. Do not apply stain to the structure until the department approves the test panels.

#### **C.5 Surfaces to be Coated.**

Apply concrete stain to the surfaces according to the plan.

#### **D Measurement**

The department will measure Concrete Staining (Structure) in area by the square foot of surface, acceptably prepared and stained.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1010.S	Concrete Staining B-53-316and B-53-319	SF
517.1010.S.002	Concrete Staining B-53-325	SF

Payment is full compensation for furnishing and applying the two coat system; for preparing the concrete surface; and for preparing the sample panels.

517-110 (20140630)

### **36. 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)

### **37. 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)

### **38. Traffic Control Signs, Item 643.0900.**

This special provision describes mounting height requirements and sign support requirements. Conform to standard spec 643, as modified in this special provision.

*Supplement standard spec 643.2.9.1(5) as follows:*

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.  
(7/6/2014)

### **39. Locating No-Passing Zones, Item 648.0100.**

For project 1003-10-74, the spotting sight distance in areas with a 55 mph posted speed limit is 0.21 miles (1108 feet).

### **40. Intelligent Transportation Systems – General Requirements.**

*Supplement standard spec 670 as follows*

#### **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.

##### **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 will 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 that 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  $\pm 3$  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 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 Ethernet cables, serial 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:

- The protectors shall suppress a peak surge current of up to 10k amps.
- The protectors shall have a response time less than one nanosecond.
- 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.
- The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.
- The protector shall also contain a resettable fuse (PTC) to protect against excessive current.

- There shall be no more than two pairs per protector.
- It shall be possible to replace the protector without using tools.

#### **C (Vacant)**

#### **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 shall be included under the ITS items in the contract.

### **41. Intelligent Transportation Systems – Control of Materials.**

#### **Standard spec 106.2 – Supply Source and Quality**

*Supplement standard spec 106.2 as follows:*

The department will furnish a portion of equipment to be installed by the contractor. This department-furnished equipment includes the following:

<b>Department-Furnished Items</b>
(4) Anchor Bolts

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 anchor bolts 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 or Region ITS contact at (608) 246-5367.

Transportation of the equipment between the electric shop and the field or interim location(s) shall be the responsibility of the contractor.

### **42. 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)

#### **43. 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.

#### **44. Base Camera Pole 50-FT, Item 672.0250.**

*Replace standard spec 672.2.3(1) with the following:*

The department will furnish anchor rods, nuts and washers.

*Replace standard spec 672.5(3) with the following:*

Payment for Base Camera Pole 50-FT is full compensation for installing department-furnished anchor rods, nuts, and washers; for providing and installing all other materials

including conduit, bushing, caps or plugs, or both, bar steel reinforcement if required, and concrete; for excavating, bedding, backfilling, and restoration of ground to original condition including sand, concrete, or other required materials; and for disposing of surplus materials.

#### **45. 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 placing, in embankments and in miscellaneous backfills, material obtained under the bid items in the roadway and drainage excavation, or excavation for structure sections; and 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:

- The engineer and contractor mutually agree to an alternative volume calculation method;
- 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 forming, compacting, shaping, sloping, trimming, finishing, and maintaining the embankments.

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 standard spec 628.5.1.

(8/24/2015)

ASP-5 will be applied to this item. The fuel usage factor for this item is 0.23.

### **46. 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.

**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:

- 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.
- Provide activities as necessary to depict administrative work, including submittals, reviews, 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).
- Provide activities as necessary to depict third-party work related to the contract.
- 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).
- Submit three copies of the IWP Schedule, 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) and an electronic file (PDF) to the following DOT email boxes; [DOTDTSWMEGASCHEDULERS@dot.wi.gov](mailto:DOTDTSWMEGASCHEDULERS@dot.wi.gov) and [I39project@dot.wi.gov](mailto:I39project@dot.wi.gov).
- 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.
- 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:

- 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:

- 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.
- Provide activities as necessary to depict administrative work, including submittals, reviews, 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).
- 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.
- 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.
- 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.
- Schedule activities shall include the following:
  - 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.
  - Codes for Contract ID / WisDOT Project ID, Responsibility, Stage, and Area. The department may provide additional codes for use within department reporting.
  - Activities shall carry a single Responsibility assignment.
  - 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.
  - Develop an anticipated cash-flow curve for the project, 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.

- 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.
- Provide three hard copies (11" x 17") of the CPM schedule depicting the CPM network. Organize the logic diagram by grouping related activities, based on the activity codes in the CPM.
- 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:
  - 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.
  - Use of constraints.
  - Use of calendars.
  - Estimated number of adverse weather days on a monthly-basis.
  - Scheduling of permit and environmental constraints, and coordination of the schedule with other contractors, utilities, and public entities.
  - Submit three copies of the Baseline CPM schedule 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) and an electronic file (PDF) to the following dot email boxes; [DOTDTSDSWMEGASCHEDULERS@dot.wi.gov](mailto:DOTDTSDSWMEGASCHEDULERS@dot.wi.gov) and [I39project@dot.wi.gov](mailto: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:

- 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.
- 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.
- 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.
- Submit three copies of 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) and an electronic file (PDF) to the following dot email boxes; [DOTDTSWMEGASCHEDULERS@dot.wi.gov](mailto:DOTDTSWMEGASCHEDULERS@dot.wi.gov) and [I39project@dot.wi.gov](mailto:I39project@dot.wi.gov).
- 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:

- Activities underway and as-built dates for the past week.
- Actual as-built dates for completed activities through final acceptance of the project.
- Planned work for the upcoming three-week period.
- 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.
- 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:

- Provide data on the following items by the units specified:
- Underground Facilities – LF per week
- Retaining Walls – SF per week
- MSE Walls
- Other Wall Types
- 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
- Roadway Excavation – CY per week
- Roadway Embankment – CY per week
- 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
- 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:

- The forecast completion date is scheduled to occur more than 14 calendar days after the contract completion date.
- An intermediate milestone is scheduled to occur more than 14 calendar days after the date required by the contract.
- The engineer determines that the progress of the work differs significantly from the current schedule.
- 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**

To request a time extension to an intermediate milestone date or the contract completion date associated with changes to the work, provide a narrative detailing the work added or

deleted and the other activities affected, based on the latest accepted CPM Monthly Update. For added work, submit a proposed fragnet of activities to be added or revised in the CPM schedule, indicating how the fragnet 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:

- 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.
- 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.
- 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.  
(12/18/2014)

#### **47. Access Gate 6-Foot, Item SPV.0060.003.**

##### **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 shall 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.0060.003	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.

(8/12/2014)

## **48. Salvage Terminal High-Tension Cable TL-3, Gibraltar, Item SPV.0060.004; Salvage High-Tension Cable TL-3, Socketed Gibraltar, Item SPV.0090.001.**

### **A Description**

This special provision describes salvaging terminals for high-tension cable guard TL-3, Gibraltar, and salvaging high-tension cable guard TL-3, socketed, Gibraltar.

### **B (Vacant)**

### **C Construction**

Remove the terminals for high-tension cable guard and high-tension cable guard in a manner that prevents damage to all salvageable materials. Salvageable materials are those materials above grade and not embedded in concrete. Any damaged materials shall be replaced at the cost of the contractor. Stockpile the salvaged materials in an engineer-approved location on the project. Any terminals for high-tension cable guard and high-tension cable guard that is removed and not reinstalled shall be considered surplus and given to Rock County. Stockpile surplus materials in an engineer-approved location on the project. The length of salvageable high-tension cable guard is estimated in the plan.

All components, including footings that are not salvageable are to be removed entirely to a depth of at least 2 feet below subgrade. Dispose of all materials not designated for salvage as specified for disposing of materials under standard spec 203.3.4. Removal and disposal of these components is incidental to the work.

### **D Measurement**

The department will measure Salvage Terminal High-Tension Cable TL- 3, Gibraltar as each individual unit, acceptably completed.

The department will measure Salvage High-Tension Cable TL- 3, Socketed, Gibraltar by the linear foot, acceptably completed, measured as the length from end of terminal to end of terminal and rounded to the nearest linear foot.

**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	Salvage Terminal High-Tension Cable TL-3, Gibraltar	Each
SPV.0090.001	Salvage High-Tension Cable TL-3, Socketed Gibraltar	LF

Payment is full compensation for removing, handling, storing and transporting the existing terminals for high-tension cable guard and high-tension cable guard materials; for disposing of any damaged materials; and for replacing contractor-damaged material.

(11/14/2013)

**49. Reinstall Terminal High-Tension Cable TL-3, Gibraltar, Item SPV.0060.005; Reinstall High-Tension Cable TL-3, Socketed Gibraltar, Item SPV.0090.002.**

**A Description**

This special provision describes providing socketed high-tension TL-3 cable guard meeting the National Cooperative Highway Research Program (NCHRP) Report 350, Test Level 3.

**B Materials**

Furnish materials salvaged under the bid items Salvage Terminal High-Tension Cable TL-3, Gibraltar, Item SPV.0060.004 and Salvage High-Tension Cable TL-3, Socketed, Gibraltar, Item SPV.0090.001 shall be used first.

All new and replacement materials not considered salvageable are to be acquired from the manufacturer below:

Gibraltar  
320 Southland Road  
Burnet, TX 78611  
Contact: Jay Winn  
Phone: (800) 495-8957 Ext. 212  
(512) 756-1426 (main)  
(512) 756-1575 (fax)  
E-mail: [jwinn@gibraltartx.com](mailto:jwinn@gibraltartx.com)  
Web: [gibraltartx.com](http://gibraltartx.com)

Furnish Grade A, A-FA, A-S, A-T, A-IS, or A-IP concrete conforming to standard spec 501.2 as modified in standard spec 716 for concrete used in concrete socketed line post footing for concrete anchors in terminals. Provide QMP for class II ancillary concrete as specified in standard spec 716.

Furnish steel reinforcement conforming to standard spec 505.

Furnish cable and all cable connection components with a minimum breaking strength of 39,000 lbs per ASTM A741-98.

Furnish zinc-coated hardware as specified in AASHTO M232.

## **B.2 Design Requirements**

Thirty days before installation provide the engineer with two sets of manufacturer prepared design calculations, approval letters, documentation, notes, plan details, and construction specifications. Provide required information in a PDF format or other in electronic format that the department can review information.

Obtain prior approval from the Bureau of Project Development [Erik Emerson at (608) 266-2842] for all hardware substitutions before delivering the hardware on the project.

Provide a system that has been formally accepted by Federal Highway Administration as meeting the crash test requirements in NCHRP Report 350 or MASH, for a Test Level 3 system.

Provide a system to have a maximum deflection of 15 feet. Provide design documentation on how post spacing, radius of curve, direction of curve, and anchor spacing influences barrier deflection.

Provided design details for concrete socketed line post footing with a maximum line post spacing of 15 feet. Minimum depth of for concrete socketed line post is 48 inches for non-rock installations.

Provide concrete anchors with minimum of 60 inches for non-rock installations.

Provide design details for non-rock installations of socketed line post and concrete anchors.

Ensure that concrete line post design has 6 inches of clear cover (distance from outside of concrete in the line post footing to steel sleeve) or manufacture provides documentation that the concrete line post footing will not become cracked or large pieces of concrete cannot fly into the air during a TL-3 truck impact.

Provide engineering analysis sealed by a Wisconsin licensed professional engineer that the line post footings and concrete anchorages are designed for the soils conditions presented in the contract. Analysis includes but is not limited to: design loads used for terminal and anchor posts, foundation design methodology used, factors of safety values, soil type, soil conditions, temperature ranges.

Soils information is located in the plans.

Provide splice and connection details that have passed NCHRP 350 or MASH TL-3 crash testing requirements.

### **C Construction**

A representative of the manufacture is to be on site at all times during the installation of the terminals and the high-tension cable guard. Manufacturer's representative will provide engineer signed documentation that the contractor has installed the socketed high-tension TL-3 cable guard according to manufacturer's recommendations.

Construct concrete as specified in standard spec 501.

Construct steel reinforcement as specified in standard spec 505.

Construct terminal units at each end of a run of cable guard as shown in the plans. The contractor may determine the location of anchors subject to the engineer's approval.

Set steel posts in socketed concrete foundations according to the manufacturer's recommendations. Line post must be easily removed from sleeve, plumb, and hold cables at proper elevations.

Tension the cable according to the manufacturer's recommendations at the time of installation, and then check and adjust approximately 3 weeks after installation. If system is not maintaining proper tension, adjust tension and return 3 weeks later. Provide engineer documentation of date, time, location, tension value, and who checked the tension for each barrier run.

Use only one-half the available adjustment in each turnbuckle or tension adjustment connection to achieve manufacture's recommend tension values.

Field swage connections per manufacturer's recommendations and details.

The engineer will allow the contractor to open the roadway to traffic or remove traffic control devices if concrete attains manufacture's compressive strength. Without compressive strength information, the engineer may allow the contractor to remove traffic control devices 14 equivalent curing days. Equivalent curing days are defined in standard spec 415.3.

### **D Measurement**

The department will measure Reinstall Terminal High-Tension Cable TL-3, Gibraltar as each individual unit, acceptably completed.

The department will measure Reinstall High-Tension Cable TL-3, Socketed, Gibraltar by the linear foot, acceptably completed, measured as the length from end of terminal to end of terminal and rounded to the nearest linear foot.

## **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	Reinstall Terminal High-Tension Cable TL-3, Gibraltar	Each
SPV.0090.002	Reinstall High-Tension Cable TL-3, Socketed Gibraltar	LF

Payment is full compensation for furnishing and installing all new materials, including posts, paint, concrete, steel reinforcement, sockets, cables, anchors, tension assemblies, fittings, and incidentals; for initial tensioning and subsequent adjustment of tension; for furnishing all excavating and backfilling; for removal of temporary anchors; for restoring of disturbed slope; delineation; engineering; and for properly disposing of excess material.  
(11/14/2013)

## **50. Fiber Tracer Marker Post, Item SPV.0060.006.**

### **A Description**

This special provision describes providing and installing a fiber tracer marker post as specified in 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 non-metallic 1-inch for connection into the communications vault.

### **C Construction**

Provide installation at locations shown on the plans and as directed by the engineer. Install so that marker cannot be pulled out or removed manually.

Install conduit rigid non-metallic 1-inch into the communications vault. Connect locate wire to fiber tracer maker post terminal. Follow all manufacturer's recommended installation procedures.

### **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.0060.006	Fiber Tracer Marker Post	Each

Payment is full compensation for providing and installing all materials, making all connections, restoration of ground to original condition including any topsoil, seed, fertilizer, mulch or sod; and for disposing of any surplus materials.

**51. Cover Plate Left In Place, Item SPV.0060.007.****A Description**

This special provision describes furnishing and installing a steel plate to cover manholes, inlets, and similar structures to support traffic loadings and asphaltic pavement or fill material.

**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 Plate Left In Place as each individual cover plate 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.0060.007	Cover Plate Left In Place	Each

Payment is full compensation for furnishing and installing the cover plate.

**52. Traffic Control Barricades Type III with Sign, Item SPV.0060.008.****A Description**

This special provision describes work performed according to standard spec 643, except as herein after modified. The barricades, base supports, signs, and tires shall become the department's property at the completion of the project.

## **B Materials**

Furnish new signs as shown in the plan and conforming to standard spec 643.

Deliver barricades to the location provided below including the base supports, and signs. The barricades shall be 8 feet long and a minimum of 5 feet tall. The horizontal pieces on the barricades shall be constructed with corrugated plastic. The upright pieces and base supports on the barricades shall be constructed using hot rolled high carbon steel. The base support dimensions shall be 5 feet long and be constructed with a square tube receiver that is of adequate size to fit the upright pieces. The upright pieces and base supports are to be painted.

The tires shall be sidewalls cut from existing tires. The sidewalls shall weigh a minimum of 20 pounds per each sidewall. Tires shall have a minimum inside diameter of 12 inches and a maximum outside diameter of 36 inches.

## **C Construction**

Attach each sign prior to delivery to the project as shown in the plan and according to standard spec 643. Provide half of the barricades with the rail stripes and signs set up for barricades placed on the left side of the roadway and provide the remaining half of the barricades with the rail stripes and signs set up for the barricades placed on the right side of the roadway.

Rock County - Deliver all items pre-assembled to the Rock County Storage Shed located at 3715 Newville Road, Janesville, WI 53545. Notify Neil Pierce at (608) 295-2614 at least one week prior to delivery of the material. Deliver base supports and tires at the same time the pre-assembled barricades are delivered.

Dane County – Notify Shaun Olson at (608) 575-2243 at least one week prior to the anticipated delivery of the material to arrange a delivery location. Deliver all items pre-assembled. Deliver base supports and tires at the same time the pre-assembled barricades are delivered.

## **D Measurement**

The department will measure Traffic Control Barricades Type III with Sign in units for each barricade, acceptably delivered. Each barricade consists of the barricade with uprights, two base supports, one sign, and four tire sidewalls.

## **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	Traffic Control Barricades Type III with Sign	Each

Payment is full compensation for furnishing and delivering to the specified location; the barricades, base supports, signs, and tires.

(2/9/2016)

**53. Traffic Control Gawk Screen Furnished, Item SPV.0090.003; and Traffic Control Gawk Screen Installed, Item SPV.0090.004.**

**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's / suppliers 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 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 standard specs 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, along the base of the screen 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 contractor's means and methods or to accommodate winter shutdowns or winter work not in the plans. Moving the screen from one barrier to another, removing and reinstalling the screen on the same barrier, or moving to storage and then moving to a barrier are included in the initial installation and will not be measured separately for payment.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.003	Traffic Control Gawk Screen Furnished	LF
SPV.0090.004	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.

## **54. Compost Tube, Item SPV.0090.005.**

### **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:

- 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.
- Is mature with regard to its suitability for serving as an erosion control Best Management Practice (BMP) as defined in the table below.
- Is stable with regard to oxygen consumption and carbon dioxide generation.
- Does not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth.
- Does not possess objectionable odors.
- 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:

- The compost technical data sheet with the feedstock by percentage in the final compost product.
- A certification that the compost meets federal and state health and safety regulations.
- A copy of the producer's STA certification.
- 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 (mmhos/cm)	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 for Compost tube shall be made from untreated Douglas fir, hemlock, or pine species. Wood stakes shall be 2 by 2-inch nominal dimension and 36 inches in length.

### **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. 0090.005	Compost Tube	LF

Payment is full compensation for loading, hauling, stockpiling, blending, placing, rolling, and sprinkling.

(5/14/2013)

## **55. Fence Chain Link Polymer-Coated 6-Ft., Item SPV.0090.750.**

### **A Description**

This special provision describes furnishing and installing a new polymer-coated fence system on structures according to the pertinent plan details, as directed by the engineer and as hereinafter provided. The color of all components in this fence system shall be the same and shall be as specified on the plans.

### **B Materials**

All materials for this fence system shall be new stock, free from defects impairing strength, durability, and appearance. Fabric shall be produced by methods recognized as good commercial practice. Wire used in the manufacture of the fabric shall be capable of being woven into fabric without the polymer-coating cracking or peeling. Pipes used in framework shall be straight, true to section and free of defects. All burrs at the ends of pipes shall be removed before galvanizing. The polymer-coating shall be a dense impervious covering, applied without voids, tears or cuts that reveal the substrate. Excessive roughness, bubbles, blisters and flaking in the polymer-coating will be a basis for rejection.

#### **B.1 Fabric**

Provide steel chain link fence fabric that conforms to the requirements of ASTM F668, Class 2b, a polymer-coating fused and adhered to wire that is zinc-coated. Provide fabric woven from 9-gage wire using plan specified mesh size, diamond pattern, with both the top and bottom selvages knuckled. The minimum breaking strength of the wire shall be 1290 lbs. The color of polymer-coating shall conform to the requirements of ASTM F934.

#### **B.2 Framework**

Provide steel rails, posts and post sleeves conforming to the requirements of ASTM F1083, Standard Weight Pipe (Schedule 40) of the size (O.D.) and weight as shown on the plans. The minimum yield strength shall be 30,000 psi and the minimum tensile strength shall be 48,000 psi. These components shall be zinc-coated inside and outside by the hot-dip process as stated in ASTM F1083. Provide polymer-coating over zinc-coating that conforms to ASTM F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components. Weld base plate to posts or post sleeves and complete any additional welding of components before galvanizing.

#### **B.3 Fittings**

Provide end post caps, line post caps, top rail sleeves, rail ends, line rail clamps, brace bands, tension bands, tension bars, and tie wires that are steel and conform to the requirements of ASTM F626. Tie wires shall be round and 9-gage wire. These components (excluding tie wires) shall be zinc-coated by the hot-dip process as stated in ASTM F626. Provide polymer-coating over zinc-coating on components (excluding tie wires) that conforms to the requirements of ASTM F626. For tie wires, provide polymer-coating on wire that is zinc-coated using the same procedure as used for the wires in the fence fabric. End post caps and line post caps shall fit tightly over posts to prevent moisture intrusion. Supply dome style caps for end posts and loop type caps for line posts. The color of polymer-coating shall



conform to the requirements of ASTM F934, and match the color of the other fence components.

#### **B.4 Bolts**

All bolts are to be supplied with lock washers and nuts. Use galvanized steel bolts, nuts and washers per plan details.

#### **B.5 Tests**

##### **B.5.1 Fabric and Tie Wire**

Breaking Strength:	ASTM A370
Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM F668
Adhesion:	ASTM F668
Accelerated Aging Test:	ASTM F668, D1499
Mandrel Bend Test:	ASTM F668

##### **B.5.2 Framework**

Tensile and Yield Strength:	ASTM E8
Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM E376
Adhesion:	ASTM F1043
Accelerated Aging Test:	ASTM F1043, D1499

##### **B.5.3 Fittings**

Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM F626
Adhesion:	ASTM F1043 (same test as for framework)
Accelerated Aging Test:	ASTM F1043, D1499 (same test as for framework)

#### **B.6 Submittals**

In addition to the engineer, send submittals listed in this section to the name below for informational purposes:

David Nelson  
WisDOT (Bureau of Structures)  
4802 Sheboygan Ave. (Room 601)  
PO Box 7916  
Madison, WI 53707

### **B.6.1 Shop Drawings**

Submit shop drawings showing the details of fence construction. Show the fence height, post spacing, rail location, and all dimensions necessary for the construction of the chain link fence. Label the end posts, line posts, rails, post sleeves, top rail sleeves, bolts and fittings. State the polymer-coating type used on the fabric, framework and fittings and the Class of coating used on the fabric. State the color of polymer-coating to be used on the fence components. For the fabric, state the wire gage, mesh size, and type of selvages used. For the framework, state the size (O.D.) and unit weight for the posts and rails. For the fittings, state the size for top rail sleeves, brace bands, tension bands, tension bars, line rail clamps, size and type of bolts, and the tie wire gage. State the material type used for fabric, framework, and fittings. Also give the breaking strength for the fabric wire and the tensile and yield strength properties for the framework.

### **B.6.2 Specification Compliance**

Submit certification of compliance with material specifications. Provide material certification and test documentation for fabric, framework, fittings and hardware that shows that all materials meet or exceed the specifications of this contract and the tests in B5. This document shall provide the name, address and phone number of the manufacturer, and the name of a contact person.

## **C Construction**

### **C.1 Delivery, Storage and Handling**

Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. If polymer-coating is damaged, contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the Owner. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

### **C.2 Touch-up and Repair**

For minor damage caused by shipping, handling or installation to polymer-coated surfaces, touch-up the finish in conformance with the manufacturer's recommendations. Provide touch-up coating such that repairs are not visible from a distance of 6-feet. If damage is beyond repair, the fencing component shall be replaced at no additional cost to the Owner. The contractor shall provide the engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

### **C.3 General**

Install the chain link fence according to ASTM F567 and the manufacturer's instructions. The contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Chain link fabric shall be installed on the side of the posts indicated on the plans. Fabric shall be attached to the end posts with tension bars and tension bands. It shall be attached to rails, and posts without tension bands, with tie wires. The fabric shall be installed and pulled taut to provide a smooth and uniform

appearance free from sag, without permanently distorting the fabric diamond or reducing the fabric height. Install top rail to pass through line post caps and form a continuous brace between end posts. Minimum length of top rail between splices shall be 20-feet. Splice top rail at joints with sleeves for a rigid connection. Locate splices near ¼ point of post spacing. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

**D Measurement**

The department will measure Fence Chain Link Polymer-Coated 6-Ft. 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.0090.750	Fence Chain Link Polymer-Coated 6-Ft.	LF

Payment is full compensation for fabricating, galvanizing and polymer-coating all fence components, and transporting to jobsite; for erecting components to create a polymer-coated fence system, including any touch-up and repairs.

**56. Concrete Barrier Temporary Precast Left In Place, Item SPV.0090.006.**

**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 according 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.0090.006	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)

**57. Concrete Barrier Temporary Precast Anchoring, Item SPV.0090.007.****A Description**

This special provision describes anchoring temporary precast reinforced concrete barrier. Perform this work according to the pertinent provisions of standard spec 603, these special provisions, and as hereinafter provided.

**B (Vacant)****C Construction**

Perform this work according to standard spec 603.3.2.1, the plans, and as hereinafter provided.

Under the Concrete Barrier Temporary Precast Anchoring bid item, furnish, deliver, and install anchors at the locations shown in the plans, as required by the project conditions, or as directed by the engineer. Install anchors during the initial installation of the temporary concrete barrier and during any subsequent reinstallations of the temporary concrete barrier as required.

Remove any anchoring during barrier removal and fill remaining holes with epoxy.

**D Measurement**

The department will measure Concrete Barrier Temporary Precast Anchoring by the linear foot, acceptably completed, measured as the linear feet of barrier initially installed or reinstalled. The department will not measure anchoring 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.0090.007	Concrete Barrier Temporary Precast Anchoring	LF

Payment is full compensation for furnishing, delivering, and installing anchoring devices; and for removal of any anchoring devices and filling holes with epoxy.

**58. Furnishing Snow Fence, Item SPV.0090.008, Installing Snow Fence, Item SPV.0090.009.**

**A Description**

This special provision describes furnishing snow fence and installing snow fence on to existing 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, 3/8 inch 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 1/4-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 woven wire right-of-way fence with the galvanized wire by wrapping the wire around the wooden post and snow fence at 3 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 18, 2016 under project 1003-10-77 and by September 1, 2017 under project 1003-10-78. If the woven wire right-of-way fence is subsequently moved or replaced as part of the project work; remove, store, and re-attach the snow fence to the moved or new woven wire fence after the woven wire fence is installed. Remove existing snow fence located within areas of proposed snow fence in advance of installing furnished snow fence. Some areas of existing snow fence may be removed by Rock County prior to construction. In areas where existing vegetation is salvaged within the Clearing and Grubbing limits shown on the plans and determined to be sufficient for snow drifting benefits by the engineer, the snow fence shall not be installed at these locations.

Any remaining Furnishing Snow Fence quantity that was determined not to be needed by the engineer in locations shown on the plans shall be delivered 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 furnished and delivered. The department will measure Installing Snow Fence by the linear foot, 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.0090.008	Furnishing Snow Fence	LF
SPV.0090.009	Installing Snow Fence	LF

Payment is full compensation for furnishing and delivering snow fence and for installing snow fence. Removal of existing snow fence located in areas where proposed snow fence will be installed is included in the cost of 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.

**59. Survey Project 1003-10-74, Item SPV.0105.001; 1003-10-75, Item SPV.0105.002; 1003-10-77, Item SPV.0105.003; 1003-10-78, Item SPV.0105.004; 1003-10-82, Item SPV.0105.005.**

#### **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.

**D Measurement**

The department will measure Survey Project 1003-10-74, 1003-10-75, 1003-10-77, 1003-10-78, and 1003-10-82 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.0105.001	Survey Project 1003-10-74	LS
SPV.0105.002	Survey Project 1003-10-75	LS
SPV.0105.003	Survey Project 1003-10-77	LS
SPV.0105.004	Survey Project 1003-10-78	LS
SPV.0105.005	Survey Project 1003-10-82	LS

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.

(5/14/2013)





## **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
209.0100	Backfill Granular	CY	0.23
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 \$1.10 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:

$$FA = \left( \frac{CFI}{BFI} - 1 \right) \times Q \times BFI$$

(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:*

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#### **450.3.2.1 General**

*Replace the entire text with the following effective with the June 2016 letting:*

##### **450.3.2.1.1 Preparation and Paving Operations**

- (1) Do not place asphaltic mixture when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 36 F for upper layers or 32 F for lower layers unless the engineer allows in writing. The contractor should place HMA pavement for projects in the northern asphalt zone between May 1 and October 15 inclusive and for projects in the southern asphalt zone between April 15 and November 1 inclusive. CMM 4-53 figure 2 defines asphalt zones. Notify the engineer at least one business day before paving.
- (2) Unless the contract specifies otherwise, conform to the following:
  - Keep the road open to all traffic during construction.
  - Prepare the existing foundation for treatment as specified in 211.
  - Incorporate loose roadbed aggregate as a part of preparing the foundation, in shoulder construction, or dispose of as the engineer approves.
- (3) Place asphaltic mixture only on a prepared, firm, and compacted base, foundation layer, or existing pavement substantially surface-dry and free of loose and foreign material. Do not place over frozen subgrade or base, or where the roadbed is unstable.

##### **450.3.2.1.2 Cold Weather Paving**

###### **450.3.2.1.2.1 General**

- (1) Conform to these cold weather paving provisions for work performed under the following:
  - The 460 HMA Pavement bid items.
  - The 465 Asphaltic Surface bid items.
  - Special provisions that require placing mixture conforming to the contract requirements under 460 for HMA pavement or under 465 for asphaltic surface.

###### **450.3.2.1.2.2 Cold Weather Paving Plan**

- (1) Submit a written cold weather paving plan to the engineer at the preconstruction meeting. In that plan outline material, operational, and equipment changes for paving when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 40 F. Include the following:
  - Use a department-accepted HMA mix design that incorporates a warm mix additive from the department's approved products list. Do not use a foaming process that introduces water into the mix.
  - Identify the warm mix additive and dosage rate.
  - Identify modifications to the compaction process and when to use them.
- (2) Engineer written acceptance is required for the cold weather paving plan. Engineer acceptance of the plan does not relieve the contractor of responsibility for the quality of HMA pavement placed in cold weather except as specified in 450.5.2(3).

###### **450.3.2.1.2.3 Cold Weather Paving Operations**

- (1) Do not place asphaltic mixture when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 40 F unless a valid engineer-accepted cold weather paving plan is in effect.
- (2) If the national weather service forecast for the construction area predicts ambient air temperature less than 40 F at the projected time of paving within the next 24 hours, confirm or submit revisions to the cold weather paving plan for engineer validation. Update the plan as required to accommodate the conditions anticipated for the next day's operations. Upon validation of the plan, the engineer will allow paving for the next day. Once in effect, pave conforming to the engineer-accepted cold weather paving plan for the balance of that work day or shift regardless of the temperature at the time of paving.

**450.4 Measurement**

Add the following as paragraph three effective with the June 2016 letting:

- (3) The department will measure HMA Cold Weather Paving by the ton of HMA mixture placed conforming to an engineer-accepted cold weather paving plan.

**450.5 Payment**

Replace the entire text with the following effective with the June 2016 letting:

**450.5.1 General**

- (1) All costs of furnishing, maintaining, and operating the truck scale or other weighing equipment and furnishing the weigh tickets are incidental to the contract.
- (2) Nonconforming material allowed to remain in place is subject to price adjustment under 105.3.2.
- (3) Full-depth sawing to remove integrally placed safety edge where not required is incidental to the contract.
- (4) The contractor is responsible for the quality of HMA placed in cold weather.

**450.5.2 Cold Weather Paving**

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

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
450.4000	HMA Cold Weather Paving	TON

- (2) Payment for HMA Cold Weather Paving is full compensation for additional materials and equipment specified for cold weather paving under 450.3.2.1.2 including costs for preparing, administering, and following the contractor's cold weather paving plan. The department will not pay for HMA Cold Weather Paving for HMA placed as follows:
- If the lot density is less than the minimum specified in table 460-3 for mixture placed under 460.
  - On days when the department is assessing liquidated damages.
- (3) If because of an excusable compensable delay under 108.10.3, the engineer directs the contractor to pave when the temperature is less than 36 F for the upper layer or less than 32 F for lower layers, the department:
- Will relieve the contractor of responsibility for damage and defects the engineer attributes to cold weather paving.
  - Will not assess disincentives for density or ride.
- (4) If HMA pavement is placed under 450.3.2.1.2 and the HMA Cold Weather Paving bid item is not in the contract, the department will pay for the additional costs specified in 450.5.2(2) as extra work. The department will pay separately for providing HMA pavement and HMA surface under 460.5, 465.5, and the contract special provisions.

**460.3.4 Cold Weather Paving**

Delete the entire subsection effective with the June 2016 letting.

**460.5.1 General**

Replace the entire text with the following effective with the June 2016 letting:

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

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
460.5000 - 5999	HMA Pavement (gradation) LT (binder)(designation)	TON
460.6000 - 6999	HMA Pavement (gradation) MT (binder)(designation)	TON
460.7000 - 7999	HMA Pavement (gradation) HT (binder)(designation)	TON
460.8000 - 8999	HMA Pavement (gradation) SMA (binder)(designation)	TON
460.2000	Incentive Density HMA Pavement	DOL

**460.5.2.2 Disincentive for HMA Pavement Density**

Replace paragraph two with the following:

- (2) The department will not assess density disincentives for pavement placed in cold weather because of a department-caused delay as specified in 450.5.2(3).

**460.5.2.4 Cold Weather Paving**

Delete the entire subsection effective with the June 2016 letting.

**550.5.2 Piling**

Add the following as paragraph three effective with the December 2015 letting:

- (3) The department will not entertain a change order request for a differing site condition under 104.2.2.2 or for a quantity change under 104.2.2.4.3 for the Piling bid items. Instead the department will adjust pay under the Piling Quantity Variation administrative item if the total driven length of each size is less than 85 percent of, or more than 115 percent of the contract quantity as follows:

Percent of Contract Length Driven	Pay Adjustment
< 85	(85% contract length - driven length) x 20% unit price
> 115	(driven length - 115% contract length) x 5% unit price

**643.2.1 General**

Replace paragraph two with the following effective with the December 2015 letting:

- (2) Use reflective sheeting from the department's approved products list on barricades, drums, and flexible tubular marker posts.

**Errata**

Make the following corrections to the standard specifications:

**641.2.9 Overhead Sign Supports**

Correct errata adding back accidentally deleted paragraphs one through three.

- (1) Provide commercially fabricated overhead sign supports conforming to AASHTO design and fabrication standards for structural supports for highway signs, luminaires, and traffic signals. Use a design life of 50 years with a wind importance factor of 1.00. Design to withstand a 3 second gust wind speed of 90 mph. Do not use the methods of appendix C of those AASHTO standards.
- (2) Design structures, listed as applicable structure types in the AASHTO standards, to the fatigue category criteria as follows:
  1. Structures carrying variable message signs:
    - Category I criteria for structures over all roadway types.
  2. Structures carrying type II or III signs:
    - Category I criteria for structures used over highways and free flow ramps.
    - Category II criteria for structures with arms greater than 30 feet used over local roads and city streets.
    - Category III criteria for structures with arms 30 feet or less used over local roads and city streets.
- (3) Use the posted speed limit of the roadway beneath the structure for truck-induced gusts.
- (4) Submit shop drawings identified by structure number, design computations, and material specifications, to the engineer before erecting sign supports. Provide tightening procedures for mast arm or luminaire arm to pole shaft connections on the shop drawings. Have a professional engineer registered in the state of Wisconsin sign, seal, and date the shop drawings and certify that the design conforms to AASHTO standards and the contract.
- (5) Provide steel pole shafts and mast arms zinc coated according to ASTM A123. Provide tapered pole and arm shafts with a minimum taper of 0.14 inch per foot for single-member vertical and single-member horizontal structure components. Provide bolts and other hardware conforming to 641.2.2.

**ADDITIONAL SPECIAL PROVISION 7**

- A. Reporting 1<sup>st</sup> 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 Tess Mulrooney at 608-267-4489 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 send several sample electronic files to Tess two months before a payroll needs to be submitted. 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>

**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 with September 2004 Letting**

**WISCONSIN DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS AND TRANSPORTATION FACILITIES**

**SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS**

- I. Wage Rates, Hours of labor and payment of Wages
- II. Payroll Requirements
- III. Postings at the Site of the Work
- IV. Affidavits
- V. Wage Rate Redistribution
- VI. Additional Classifications

**I. WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES**

The schedule of "Minimum Wage Rates" attached hereto and made a part hereof furnishes the prevailing wage rates that have been determined pursuant to Section 103.50 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the various 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 103.50, Stats. If necessary to employ laborers, workers, mechanics or truck drivers whose classification is not listed on the schedule, they shall be paid at rates conformable to those listed for similar classifications. Apprentices shall be paid at rates not less than those prescribed in their state indenture contracts.

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 103.50 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 rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) 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, eculid 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.

For those projects subject to the requirements of the Davis-Bacon Act, the Secretary of Labor will also have determined "Minimum Wage Rates" for work to be performed under the contract. These rates are, for all or most of the labor, worker, mechanic or truck driver classifications, identical to those established under Section 103.50 of the Wisconsin Statutes. In the event the rates are not identical, the higher of the two rates will govern.

## **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 103.50 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 place at the site of work:

- a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.
- b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)
- c. A copy of the contractor's Equal Employment Opportunity Policy.
- d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

## **IV. WAGE RATE REDISTRIBUTION**

The amount specified as the hourly basic rate of pay and the amount(s) specified as the fringe benefit contribution(s), for all classes of laborers, workers, mechanics or truck drivers may be redistributed, when necessary, to conform to those specified in any applicable collective bargaining agreement, provided that both parties to such agreement

request and receive the approval for any such redistribution from both the Department of Transportation and the Department of Workforce Development prior to the implementation of such redistribution.

## **V. ADDITIONAL CLASSIFICATIONS**

Any unlisted laborer or mechanic classification that is needed to perform work on this project, and is not included within the scope of any of the classifications listed in the application prevailing wage rate determination, may be added after award only if all of the following criteria have been met:

1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.
2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.
3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.
4. The unlisted classification must be commonly employed in the area where the project is located.
5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.
6. The request should be made prior to the actual performance of the work by the unlisted classification.
7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.
8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

The approved wage/fringe benefit package shall be paid to all laborers, workers, mechanics or truck drivers performing work within the scope of that performed by the unlisted classification, from the first day on which such work is performed. In the event that work is performed by the unlisted classification prior to approval, the wage/fringe benefit package to be paid for such work must be in conformance with the wage/fringe

benefit package approved for such work. Under this arrangement a retroactive adjustment in wages and/or fringe benefits may be required to be made to the affected laborers, workers, mechanics or truck drivers by the affected employer(s).

**ANNUAL PREVAILING WAGE RATE DETERMINATION  
FOR ALL STATE HIGHWAY PROJECTS  
ROCK COUNTY**

Compiled by the State of Wisconsin - Department of Workforce Development  
for the Department of Transportation  
Pursuant to s. 103.50, Stats.  
Issued on May 1, 2016

**CLASSIFICATION:** Contractors are required to call the Department of Workforce Development if there are any questions regarding the proper trade or classification to be used for any worker on a public works project.

**OVERTIME:** Time and one-half must be paid for all hours worked over 10 hours per day and 40 hours per calendar week and for all hours worked on Saturday, Sunday and the following six (6) holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25; the day before if January 1, July 4 or December 25 falls on a Saturday; the day following if January 1, July 4 or December 25 falls on a Sunday.

**FUTURE INCREASE:** If indicated for a specific trade or occupation, the full amount of such increase MUST be added to the "TOTAL" indicated for such trade or occupation on the date(s) such increase(s) becomes effective.

**PREMIUM PAY:** If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.

**SUBJOURNEY:** Wage rates may be available for some of the classifications indicated below. Any employer that desires to use any subjourney classification on a project MUST request the applicable wage rate from the Department of Workforce Development PRIOR to the date such classification is used on such project. Form ERD-10880 is available for this purpose and can be obtained by writing to the Department of Workforce Development, Equal Rights Division, P.O. Box 8928, Madison, WI 53708.

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Bricklayer, Blocklayer or Stonemason	31.55	18.52	50.07
Carpenter	33.02	17.12	50.14
Future Increase(s): Add \$1.42/hr on 6/1/2016. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Cement Finisher	35.97	17.85	53.82
Future Increase(s): Add \$1.75 on 6/1/16. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	31.90	18.47	50.37
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Fence Erector	35.62	0.00	35.62
Ironworker	36.29	33.93	70.22
Future Increase(s): Add \$2.30/hr on 6/1/16 Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Line Constructor (Electrical)	40.81	18.06	58.87
Painter	29.87	18.79	48.66
Pavement Marking Operator	31.24	17.04	48.28
Piledriver	30.11	21.09	51.20
Roofer or Waterproofer	30.40	2.23	32.63
Teledata Technician or Installer	22.50	15.48	37.98
Tuckpointer, Caulker or Cleaner	32.82	18.67	51.49

<b>TRADE OR OCCUPATION</b>	<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>
Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	15.92	52.65
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	35.50	14.70	50.20
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	14.21	42.78
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.09	39.62
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72

**TRUCK DRIVERS**

Single Axle or Two Axle	36.72	21.15	57.87
Three or More Axle	25.78	18.96	44.74
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Articulated, Euclid, Dumptror, Off Road Material Hauler	30.82	21.85	52.67
Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium.			
See DOT'S website for details about the applicability of this night work premium at: <a href="http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx">http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx</a> .			
Pavement Marking Vehicle	23.82	17.72	41.54
Shadow or Pilot Vehicle	25.28	18.31	43.59
Truck Mechanic	25.28	18.31	43.59

**LABORERS**

General Laborer	30.67	15.65	46.32
Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017			
Premium Pay: Add \$.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.20/hr for blaster and powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and grade specialist; Add \$.45/hr for pipelayer.			
DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	19.00	0.00	19.00
Landscaper	30.67	15.65	46.32
Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	27.30	15.65	42.95
Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under			



<b>TRADE OR OCCUPATION</b>	<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
	<b>\$</b>	<b>\$</b>	<b>\$</b>
artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.76	0.00	18.76
Railroad Track Laborer	18.00	5.95	23.95

### HEAVY EQUIPMENT OPERATORS

Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type).	38.27	21.85	60.12
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Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.

Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium.

See DOT'S website for details about the applicability of this night work premium at:

<http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx>.

Backhoe (Track Type) Having a Mfr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver.	37.77	21.85	59.62
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Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.

Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium.

See DOT'S website for details about the applicability of this night work premium at:

<http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx>.

Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or	37.27	21.85	59.12
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<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: <a href="http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx">http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx</a> .			
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: <a href="http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx">http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx</a> .	37.01	21.85	58.86
Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: <a href="http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx">http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx</a> .	36.72	21.85	58.57
Fiber Optic Cable Equipment.	26.00	3.86	29.86

## SCHEDULE OF ITEMS

CONTRACT:	PROJECT(S):	FEDERAL ID(S):
20160614003	1003-10-74	N/A
	1003-10-75	N/A
	1003-10-77	N/A
	1003-10-78	N/A
	1003-10-82	N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS

## SECTION 0001 Roadway Items

0010	201.0105 Clearing	87.000				
		STA	.		.	
0020	201.0205 Grubbing	87.000				
		STA	.		.	
0030	203.0100 Removing Small Pipe Culverts	12.000				
		EACH	.		.	
0040	203.0200 Removing Old Structure (station) 001. STA. 17+29 'CK'	LUMP	LUMP			.
0050	203.0200 Removing Old Structure (station) 002. STA 20+25	LUMP	LUMP			.
0060	203.0200 Removing Old Structure (station) 003. STATION 19+66.99 'WR'	LUMP	LUMP			.
0070	203.0225.S Debris Containment (structure) 001. B-53-41	LUMP	LUMP			.
0080	203.0225.S Debris Containment (structure) 002. B-53-204	LUMP	LUMP			.
0090	203.0225.S Debris Containment (structure) 003. B-53-38	LUMP	LUMP			.

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0100	204.0100 Removing Pavement	55,048.000 SY	.		.	
0110	204.0109.S Removing Concrete Surface Partial Depth	24.000 SF	.		.	
0120	204.0120 Removing Asphaltic Surface Milling	5,593.000 SY	.		.	
0130	204.0157 Removing Concrete Barrier	313.000 LF	.		.	
0140	204.0165 Removing Guardrail	7,812.000 LF	.		.	
0150	204.0170 Removing Fence	1,896.000 LF	.		.	
0160	204.0180 Removing Delineators and Markers	137.000 EACH	.		.	
0170	204.0195 Removing Concrete Bases	4.000 EACH	.		.	
0180	204.0210 Removing Manholes	1.000 EACH	.		.	
0190	204.0220 Removing Inlets	7.000 EACH	.		.	

## SCHEDULE OF ITEMS

CONTRACT:	PROJECT(S):	FEDERAL ID(S):
20160614003	1003-10-74	N/A
	1003-10-75	N/A
	1003-10-77	N/A
	1003-10-78	N/A
	1003-10-82	N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0200	204.0245 Removing Storm Sewer (size) 001. 18-Inch	18.000 LF	.		.	
0210	204.9060.S Removing (item description) 001. Apron Endwall	37.000 EACH	.		.	
0220	205.0100 Excavation Common	127,041.000 CY	.		.	
0230	206.1000 Excavation for Structures Bridges (structure) 001. B-53-316	LUMP	LUMP		.	
0240	206.1000 Excavation for Structures Bridges (structure) 002. B-53-325	LUMP	LUMP		.	
0250	206.1000 Excavation for Structures Bridges (structure) 003. B-53-319	LUMP	LUMP		.	
0260	210.0100 Backfill Structure	2,088.000 CY	.		.	
0270	211.0500 Prepare Foundation for Base Aggregate	250.000 STA	.		.	
0280	213.0100 Finishing Roadway (project) 001. 1003-10-82	1.000 EACH	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0290	213.0100 Finishing Roadway (project) 002. 1003-10-74	1.000 EACH	.		.	
0300	213.0100 Finishing Roadway (project) 003. 1003-10-75	1.000 EACH	.		.	
0310	213.0100 Finishing Roadway (project) 004. 1003-10-78	1.000 EACH	.		.	
0320	213.0100 Finishing Roadway (project) 005. 1003-10-77	1.000 EACH	.		.	
0330	305.0110 Base Aggregate Dense 3/4-Inch	5,783.000 TON	.		.	
0340	305.0120 Base Aggregate Dense 1 1/4-Inch	182,875.000 TON	.		.	
0350	305.0130 Base Aggregate Dense 3-Inch	10,854.000 TON	.		.	
0360	312.0110 Select Crushed Material	4,395.000 TON	.		.	
0370	415.0070 Concrete Pavement 7-Inch	42.000 SY	.		.	
0380	415.0080 Concrete Pavement 8-Inch	62.000 SY	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0390	415.0410 Concrete Pavement Approach Slab	348.000 SY	.		.	
0400	416.0610 Drilled Tie Bars	142.000 EACH	.		.	
0410	416.1010 Concrete Surface Drains	30.000 CY	.		.	
0420	416.1715 Concrete Pavement Repair SHES	29.000 SY	.		.	
0430	416.1725 Concrete Pavement Replacement SHES	351.000 SY	.		.	
0440	455.0605 Tack Coat	5,120.000 GAL	.		.	
0450	460.2000 Incentive Density HMA Pavement	46,381.000 DOL	1.00000		46381.00	
0460	460.5223 HMA Pavement 3 LT 58-28 S	1,780.000 TON	.		.	
0470	460.5224 HMA Pavement 4 LT 58-28 S	2,705.000 TON	.		.	
0480	460.7222 HMA Pavement 2 HT 58-28 S	40,935.000 TON	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0490	460.7223 HMA Pavement 3 HT 58-28 S	865.000 TON	.		.	
0500	460.7423 HMA Pavement 3 HT 58-28 H	440.000 TON	.		.	
0510	460.7424 HMA Pavement 4 HT 58-28 H	26,467.000 TON	.		.	
0520	465.0105 Asphaltic Surface	64.000 TON	.		.	
0530	465.0315 Asphaltic Flumes	41.000 SY	.		.	
0540	502.0100 Concrete Masonry Bridges	1,827.000 CY	.		.	
0550	502.3200 Protective Surface Treatment	2,759.000 SY	.		.	
0560	502.3210 Pigmented Surface Sealer	678.000 SY	.		.	
0570	503.0146 Prestressed Girder Type I 45W-Inch	4,338.000 LF	.		.	
0580	505.0400 Bar Steel Reinforcement HS Structures	30,490.000 LB	.		.	



## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR :

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0590	505.0600 Bar Steel Reinforcement HS Coated Structures	289,650.000 LB	.		.	
0600	506.2605 Bearing Pads Elastomeric Non-Laminated	76.000 EACH	.		.	
0610	506.4000 Steel Diaphragms (structure) 001. B-53-316	20.000 EACH	.		.	
0620	506.4000 Steel Diaphragms (structure) 002. B-53-325	20.000 EACH	.		.	
0630	506.4000 Steel Diaphragms (structure) 003. B-53-319	24.000 EACH	.		.	
0640	511.1200 Temporary Shoring (structure) 002. B-53-325	910.000 SF	.		.	
0650	511.1200 Temporary Shoring (structure) 003. B-53-319	950.000 SF	.		.	
0660	511.2200 Temporary Shoring Left in Place (structure) 001. B-53-56	715.000 SF	.		.	
0670	516.0500 Rubberized Membrane Waterproofing	76.000 SY	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

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20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0680	517.1010.S Concrete Staining (structure) 001. B-53-316	8,500.000 SF	.		.	
0690	517.1010.S Concrete Staining (structure) 002. B-53-325	7,040.000 SF	.		.	
0700	517.1010.S Concrete Staining (structure) 003. B-53-319	8,110.000 SF	.		.	
0710	520.8000 Concrete Collars for Pipe	55.000 EACH	.		.	
0720	521.0124 Culvert Pipe Corrugated Steel 24-Inch	130.000 LF	.		.	
0730	521.1012 Apron Endwalls for Culvert Pipe Steel 12-Inch	8.000 EACH	.		.	
0740	521.1024 Apron Endwalls for Culvert Pipe Steel 24-Inch	4.000 EACH	.		.	
0750	522.0118 Culvert Pipe Reinforced Concrete Class III 18-Inch	112.000 LF	.		.	
0760	522.0124 Culvert Pipe Reinforced Concrete Class III 24-Inch	66.000 LF	.		.	
0770	522.0130 Culvert Pipe Reinforced Concrete Class III 30-Inch	168.000 LF	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0780	522.0142 Culvert Pipe Reinforced Concrete Class III 42-Inch	305.000 LF	.		.	
0790	522.0148 Culvert Pipe Reinforced Concrete Class III 48-Inch	340.000 LF	.		.	
0800	522.0318 Culvert Pipe Reinforced Concrete Class IV 18-Inch	120.000 LF	.		.	
0810	522.0324 Culvert Pipe Reinforced Concrete Class IV 24-Inch	312.000 LF	.		.	
0820	522.0330 Culvert Pipe Reinforced Concrete Class IV 30-Inch	22.000 LF	.		.	
0830	522.0336 Culvert Pipe Reinforced Concrete Class IV 36-Inch	27.000 LF	.		.	
0840	522.0348 Culvert Pipe Reinforced Concrete Class IV 48-Inch	23.000 LF	.		.	
0850	522.0354 Culvert Pipe Reinforced Concrete Class IV 54-Inch	33.000 LF	.		.	
0860	522.0518 Culvert Pipe Reinforced Concrete Class V 18-Inch	71.000 LF	.		.	
0870	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	1.000 EACH	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0880	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	25.000 EACH	.		.	
0890	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	24.000 EACH	.		.	
0900	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	5.000 EACH	.		.	
0910	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	3.000 EACH	.		.	
0920	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	5.000 EACH	.		.	
0930	522.1054 Apron Endwalls for Culvert Pipe Reinforced Concrete 54-Inch	3.000 EACH	.		.	
0940	524.0618 Apron Endwalls for Culvert Pipe Salvaged 18-Inch	1.000 EACH	.		.	
0950	550.2126 Piling CIP Concrete 12 3/4 X 0. 375-Inch	6,655.000 LF	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0960	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	335.000 LF	.		.	
0970	601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	328.000 LF	.		.	
0980	603.8000 Concrete Barrier Temporary Precast Delivered	20,258.000 LF	.		.	
0990	603.8125 Concrete Barrier Temporary Precast Installed	27,448.000 LF	.		.	
1000	604.0500 Slope Paving Crushed Aggregate	1,003.000 SY	.		.	
1010	606.0200 Riprap Medium	100.000 CY	.		.	
1020	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	1,080.000 LF	.		.	
1030	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	15.000 LF	.		.	
1040	611.0610 Inlet Covers Type BW	24.000 EACH	.		.	
1050	611.0642 Inlet Covers Type MS	7.000 EACH	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1060	611.0654 Inlet Covers Type V	8.000 EACH	.		.	
1070	611.3220 Inlets 2x2-FT	8.000 EACH	.		.	
1080	611.3225 Inlets 2x2.5-FT	24.000 EACH	.		.	
1090	611.3901 Inlets Median 1 Grate	5.000 EACH	.		.	
1100	611.3903 Inlets Median 3 Grate	1.000 EACH	.		.	
1110	611.8115 Adjusting Inlet Covers	2.000 EACH	.		.	
1120	612.0212 Pipe Underdrain Unperforated 12-Inch	486.000 LF	.		.	
1130	612.0406 Pipe Underdrain Wrapped 6-Inch	600.000 LF	.		.	
1140	614.0010 Barrier System Grading Shaping Finishing	7.000 EACH	.		.	
1150	614.0150 Anchor Assemblies for Steel Plate Beam Guard	12.000 EACH	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1160	614.0220 Steel Thrie Beam Bullnose Terminal	4.000 EACH	.		.	
1170	614.0230 Steel Thrie Beam	250.000 LF	.		.	
1180	614.0800 Crash Cushions Permanent	2.000 EACH	.		.	
1190	614.0905 Crash Cushions Temporary	27.000 EACH	.		.	
1200	614.2300 MGS Guardrail 3	9,676.400 LF	.		.	
1210	614.2330 MGS Guardrail 3 K	830.000 LF	.		.	
1220	614.2500 MGS Thrie Beam Transition	745.400 LF	.		.	
1230	614.2610 MGS Guardrail Terminal EAT	22.000 EACH	.		.	
1240	614.2620 MGS Guardrail Terminal Type 2	8.000 EACH	.		.	
1250	616.0100 Fence Woven Wire (height) 001. 6-Ft	1,075.000 LF	.		.	

## SCHEDULE OF ITEMS

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20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR :

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1260	616.0100 Fence Woven Wire (height) 002. 4-Ft	288.000 LF	.		.	
1270	616.0206 Fence Chain Link 6-FT	340.000 LF	.		.	
1280	616.0329 Gates Chain Link (width) 001. 3.5 Feet	2.000 EACH	.		.	
1290	618.0100 Maintenance And Repair of Haul Roads (project) 001. 1003-10-82	1.000 EACH	.		.	
1300	618.0100 Maintenance And Repair of Haul Roads (project) 002. 1003-10-74	1.000 EACH	.		.	
1310	618.0100 Maintenance And Repair of Haul Roads (project) 003. 1003-10-75	1.000 EACH	.		.	
1320	618.0100 Maintenance And Repair of Haul Roads (project) 004. 1003-10-78	1.000 EACH	.		.	
1330	618.0100 Maintenance And Repair of Haul Roads (project) 005. 1003-10-77	1.000 EACH	.		.	
1340	619.1000 Mobilization	1.000 EACH	.		.	



## SCHEDULE OF ITEMS

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20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1350	621.0100 Landmark Reference Monuments	4.000 EACH	.		.	
1360	624.0100 Water	5,060.000 MGAL	.		.	
1370	625.0500 Salvaged Topsoil	246,661.000 SY	.		.	
1380	627.0200 Mulching	147,075.000 SY	.		.	
1390	628.1504 Silt Fence	49,968.000 LF	.		.	
1400	628.1520 Silt Fence Maintenance	49,968.000 LF	.		.	
1410	628.1905 Mobilizations Erosion Control	29.000 EACH	.		.	
1420	628.1910 Mobilizations Emergency Erosion Control	18.000 EACH	.		.	
1430	628.2004 Erosion Mat Class I Type B	74,726.000 SY	.		.	
1440	628.2023 Erosion Mat Class II Type B	2,624.000 SY	.		.	

## SCHEDULE OF ITEMS

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20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1450	628.6505 Soil Stabilizer Type A	3.700 ACRE	.		.	
1460	628.6510 Soil Stabilizer Type B	44.000 ACRE	.		.	
1470	628.7005 Inlet Protection Type A	37.000 EACH	.		.	
1480	628.7010 Inlet Protection Type B	44.000 EACH	.		.	
1490	628.7015 Inlet Protection Type C	2.000 EACH	.		.	
1500	628.7020 Inlet Protection Type D	24.000 EACH	.		.	
1510	628.7504 Temporary Ditch Checks	2,129.000 LF	.		.	
1520	628.7555 Culvert Pipe Checks	207.000 EACH	.		.	
1530	628.7560 Tracking Pads	18.000 EACH	.		.	
1540	629.0205 Fertilizer Type A	212.240 CWT	.		.	

## SCHEDULE OF ITEMS

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20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1550	630.0110 Seeding Mixture No. 10	122.000 LB	.		.	
1560	630.0120 Seeding Mixture No. 20	572.000 LB	.		.	
1570	630.0130 Seeding Mixture No. 30	4,382.000 LB	.		.	
1580	630.0175 Seeding Mixture No. 75	336.000 LB	.		.	
1590	630.0200 Seeding Temporary	8,978.000 LB	.		.	
1600	630.0300 Seeding Borrow Pit	15.000 LB	.		.	
1610	633.0100 Delineator Posts Steel	14.000 EACH	.		.	
1620	633.0500 Delineator Reflectors	14.000 EACH	.		.	
1630	633.5200 Markers Culvert End	57.000 EACH	.		.	
1640	634.0618 Posts Wood 4x6-Inch X 18-FT	18.000 EACH	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

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20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1650	634.0620 Posts Wood 4x6-Inch X 20-FT	1.000 EACH	.		.	
1660	635.0200 Sign Supports Structural Steel HS	200.000 LB	.		.	
1670	635.0300 Sign Supports Replacing Base Connection Bolts	6.000 EACH	.		.	
1680	636.0100 Sign Supports Concrete Masonry	10.800 CY	.		.	
1690	636.0500 Sign Supports Steel Reinforcement	600.000 LB	.		.	
1700	637.2210 Signs Type II Reflective H	90.000 SF	.		.	
1710	638.2101 Moving Signs Type I	6.000 EACH	.		.	
1720	638.2102 Moving Signs Type II	72.000 EACH	.		.	
1730	638.2602 Removing Signs Type II	14.000 EACH	.		.	
1740	638.3000 Removing Small Sign Supports	22.000 EACH	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1750	638.4000 Moving Small Sign Supports	5.000 EACH	.		.	
1760	638.4100 Moving Structural Steel Sign Supports	13.000 EACH	.		.	
1770	642.5201 Field Office Type C	1.000 EACH	.		.	
1780	643.0200 Traffic Control Surveillance and Maintenance (project) 001. 1003-10-82	200.000 DAY	.		.	
1790	643.0200 Traffic Control Surveillance and Maintenance (project) 002. 1003-10-74	277.000 DAY	.		.	
1800	643.0200 Traffic Control Surveillance and Maintenance (project) 003. 1003-10-75	120.000 DAY	.		.	
1810	643.0200 Traffic Control Surveillance and Maintenance (project) 004. 1003-10-78	130.000 DAY	.		.	
1820	643.0200 Traffic Control Surveillance and Maintenance (project) 005. 1003-10-77	130.000 DAY	.		.	
1830	643.0300 Traffic Control Drums	82,360.000 DAY	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1840	643.0420 Traffic Control Barricades Type III	8,361.000 DAY	.		.	
1850	643.0705 Traffic Control Warning Lights Type A	10,254.000 DAY	.		.	
1860	643.0710 Traffic Control Warning Lights Type B	244.000 DAY	.		.	
1870	643.0715 Traffic Control Warning Lights Type C	27,647.000 DAY	.		.	
1880	643.0800 Traffic Control Arrow Boards	1,515.000 DAY	.		.	
1890	643.0900 Traffic Control Signs	26,900.000 DAY	.		.	
1900	643.0910 Traffic Control Covering Signs Type I	2.000 EACH	.		.	
1910	643.1050 Traffic Control Signs PCMS	1,194.000 DAY	.		.	
1920	643.2000 Traffic Control Detour (project) 001. 1003-10-82	1.000 EACH	.		.	
1930	645.0120 Geotextile Fabric Type HR	551.000 SY	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

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1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1940	646.0106 Pavement Marking Epoxy 4-Inch	167,652.000 LF	.		.	
1950	646.0116 Pavement Marking Epoxy 6-Inch	2,290.000 LF	.		.	
1960	646.0126 Pavement Marking Epoxy 8-Inch	3,310.000 LF	.		.	
1970	646.0136 Pavement Marking Epoxy 12-Inch	400.000 LF	.		.	
1980	646.0600 Removing Pavement Markings	468,890.000 LF	.		.	
1990	648.0100 Locating No-Passing Zones	2.000 MI	.		.	
2000	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	27,280.000 LF	.		.	
2010	649.0402 Temporary Pavement Marking Paint 4-Inch	266,400.000 LF	.		.	
2020	649.0403 Temporary Pavement Marking Epoxy 4-Inch	98,365.000 LF	.		.	
2030	649.0801 Temporary Pavement Marking Removable Tape 8-Inch	948.000 LF	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2040	649.0803 Temporary Pavement Marking Epoxy 8-Inch	600.000 LF	.		.	
2050	652.0125 Conduit Rigid Metallic 2-Inch	144.000 LF	.		.	
2060	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	3,450.000 LF	.		.	
2070	652.0700.S Install Conduit into Existing Item	1.000 EACH	.		.	
2080	653.0135 Pull Boxes Steel 24x36-Inch	4.000 EACH	.		.	
2090	653.0140 Pull Boxes Steel 24x42-Inch	8.000 EACH	.		.	
2100	653.0222 Junction Boxes 18x12x6-Inch	12.000 EACH	.		.	
2110	671.0122 Conduit HDPE 2-Duct 2-Inch	530.000 LF	.		.	
2120	672.0250 Base Camera Pole 50-FT	1.000 EACH	.		.	
2130	673.0105 Communication Vault Type 1	1.000 EACH	.		.	



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1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2140	690.0150 Sawing Asphalt	21,513.000				
	LF		.		.	
2150	690.0250 Sawing Concrete	57,388.000				
	LF		.		.	
2160	715.0415 Incentive Strength Concrete Pavement	1,000.000	1.00000		1000.00	
2170	715.0502 Incentive Strength Concrete Structures	10,920.000	1.00000		10920.00	
2180	SPV.0035 Special 001. Roadway Embankment	264,401.000				
	CY		.		.	
2190	SPV.0060 Special 001. Baseline CPM Progress Schedule	1.000				
	EACH		.		.	
2200	SPV.0060 Special 002. CPM Progress Schedule Updates and Accepted Revisions	26.000				
	EACH		.		.	
2210	SPV.0060 Special 003. Access Gate 6-Foot	4.000				
	EACH		.		.	
2220	SPV.0060 Special 004. Salvage Terminal High-Tension Cable TL-3, Gibraltar	3.000				
	EACH		.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2230	SPV.0060 Special 005. Reinstall Terminal High-Tension Cable TL-3, Gibraltar	3.000 EACH	.		.	
2240	SPV.0060 Special 006. Fiber Tracer Marker Post	2.000 EACH	.		.	
2250	SPV.0060 Special 007. Cover Plate Left In Place	2.000 EACH	.		.	
2260	SPV.0060 Special 008. Traffic Control Barricades Type III with Sign	32.000 EACH	.		.	
2270	SPV.0090 Special 001. Salvage High-Tension Cable TL-3, Socketed Gibraltar	1,017.000 LF	.		.	
2280	SPV.0090 Special 002. Reinstall High-Tension Cable TL-3, Socketed Gibraltar	1,017.000 LF	.		.	
2290	SPV.0090 Special 003. Traffic Control Gawb Screen Furnished	400.000 LF	.		.	
2300	SPV.0090 Special 004. Traffic Control Gawb Screen Installed	400.000 LF	.		.	
2310	SPV.0090 Special 005. Compost Tube	2,700.000 LF	.		.	

## SCHEDULE OF ITEMS

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20160614003

1003-10-74

N/A

1003-10-75

N/A

1003-10-77

N/A

1003-10-78

N/A

1003-10-82

N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2320	SPV.0090 Special 006. Concrete Barrier Temporary Precast Left In Place	1,350.000 LF	.		.	
2330	SPV.0090 Special 007. Concrete Barrier Temporary Precast Anchoring	200.000 LF	.		.	
2340	SPV.0090 Special 008. Furnishing Snow Fence	29,200.000 LF	.		.	
2350	SPV.0090 Special 009. Installing Snow Fence	28,200.000 LF	.		.	
2360	SPV.0090 Special 750. Fence Chain Link Polymer-Coated 6-Ft.	1,615.000 LF	.		.	
2370	SPV.0105 Special 001. Survey Project 1003-10-74	LUMP	LUMP		.	
2380	SPV.0105 Special 002. Survey Project 1003-10-75	LUMP	LUMP		.	
2390	SPV.0105 Special 003. Survey Project 1003-10-77	LUMP	LUMP		.	
2400	SPV.0105 Special 004. Survey Project 1003-10-78	LUMP	LUMP		.	

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CONTRACT:	PROJECT(S):	FEDERAL ID(S):
20160614003	1003-10-74	N/A
	1003-10-75	N/A
	1003-10-77	N/A
	1003-10-78	N/A
	1003-10-82	N/A

CONTRACTOR : \_\_\_\_\_

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2410	SPV.0105 Special 005. Survey Project 1003-10-82	LUMP	LUMP			.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

**PLEASE ATTACH SCHEDULE OF ITEMS HERE**