HIGHWAY WORK PROPOSAL

Proposal Number:

STH 67

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

COUNTY STATE PROJECT ID FEDERAL PROJECT ID PROJECT DESCRIPTION HIGHWAY

Waukesha 3100-06-60 Summit Avenue, Village of Summit USH 18 to CTH DR

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, \$ 75,000.00
Payable to: Wisconsin Department of Transportation

Bid Submittal Due
Date: December 13, 2016
Time (Local Time): 9:00 AM

Contract Completion Time
June 9, 2017

Assigned Disadvantaged Business Enterprise Goal

Attach Proposal Guaranty on back of this PAGE.

Firm Name, Address, City, State, Zip Code

SAMPLE
NOT FOR BIDDING PURPOSES

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.

| Notary Seal For Department | Use Only |
|--|---|
| (Date Commission Expires) | (Bidder Title) |
| (Print or Type Name, Notary Public, State Wisconsin) | (Print or Type Bidder Name) |
| (Signature, Notary Public, State of Wisconsin) | (Bidder Signature) |
| Subscribed and sworn to before me this date | |
| Oo not sign, notarize, or submit this Highway Work Proposal when s | submitting an electronic bid on the Internet. |
| hat the bidder or agents, officer, or employees have not, either directly or indirectly aken any action in restraint of free competitive bidding in connection with this prop | |

| Type of Work | |
|---|---|
| Asphalt milling, asphalt pavement, structure rehabilitation (B-67-001 | 0), signals, beam guard, signing, pavement marking. |
| 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

- 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 ExpressTM 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 ExpressTM on-line bidding exchange by following the instructions provided at the www.bidx.com web site or by contacting:

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

- (5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.
- (6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:

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

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

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

B Submitting Electronic Bids

B.1 On the Internet

- (1) Do the following before submitting the bid:
 - 1. Have a properly executed annual bid bond on file with the department.
 - 2. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.
- (2) In lieu of preparing, delivering, and submitting the proposal as specified in 102.6 and 102.9 of the standard specifications, submit the proposal on the internet as follows:
 - 1. Download the latest schedule of items reflecting all addenda from the Bid Express web site.
 - 2. Use ExpediteTM software to enter a unit price for every item in the schedule of items.
 - 3. Submit the bid according to the requirements of ExpediteTM software and the Bid ExpressTM 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 ExpressTM 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 TM 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 Meb site to assure that the schedule of items is prepared properly.

(2) Staple an 8 1/2 by 11 inch printout of the ExpediteTM 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 ExpediteTM 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 ExpediteTM 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 ExpediteTM generated schedule of items is not the same on each page.
 - The check code printed on the printout of the ExpediteTM 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 Corpor | ate Seal) | | |
|---|-----------------------------------|---|-------------------------|
| (Signature and Title) | | | |
| (Company Name) | | | |
| (Signature and Title) | | | |
| (Company Name) | | | |
| (Signature and Title) | | (Name of Surety) (Affix Seal) | |
| (Company Name) | | (Signature of Attorney-in-Fact) | |
| (Signature and Title) | | | |
| NOTARY FO | OR PRINCIPAL | NOTARY FO | R SURETY |
| (Date) | | (Dat | te) |
| State of Wisconsin |) | State of Wisconsin |) |
| |) ss. County) | |) ss. _County) |
| On the above date, this instrument named person(s). | was acknowledged before me by the | On the above date, this instrument was acknowledged before me by named person(s). | |
| (Signature, Notary Pu | ublic, State of Wisconsin) | (Signature, Notary Publ | ic, State of Wisconsin) |
| (Print or Type Name, Nota | ry Public, State of Wisconsin) | (Print or Type Name, Notary Public, State of Wisconsin) | |
| (Date Comn | nission Expires) | (Date Commis | sion Expires) |

Notary Seal 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

(Date)

| Time Period Valid (| From/To) |
|---------------------|--|
| Name of Surety | |
| Name of Contracto | r |
| Certificate Holder | Wisconsin Department of Transportation |
| | y that an annual bid bond issued by the above-named Surety is currently on file with the partment of Transportation. |
| | is issued as a matter of information and conveys no rights upon the certificate holder mend, 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)

March 2010

LIST OF SUBCONTRACTORS

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

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

| Name of Subcontractor | Class of Work | Estimated Value |
|-----------------------|---------------|------------------------|
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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.

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 3100-06-60, Summit Avenue, Village of Summit, USH 18 to CTH DR, STH 67, Waukesha County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2017 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system. 100-005 (20160607)

2. Scope of Work.

The work under this contract shall consist of asphalt milling, HMA pavement, structure rehabilitation (B-67-0010), traffic signals, beam guard, signing, pavement marking, 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.

Schedule of Operations

Conform to the requirements described below, unless the engineer approves modifications in writing.

There may be multiple mobilizations for such items as traffic control, signing items, temporary pavement marking, permanent pavement marking, asphalt, sawing, and other incidental items related to the staging. No additional payments will be made by the department for said mobilizations.

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The project shall be built in three stages. See the Traffic section of these Special Provisions for locations of stages and work required in each Stage.

Complete all work in Stage 1 and Stage 2 prior to beginning Stage 3.

Traffic Signal work at the intersection of STH 67 and USH 18 may occur in any stage.

Complete Base Patching Asphaltic before performing Asphaltic Surface Milling at the base patching locations.

Mill, joint and crack repair, prepare foundation for asphaltic shoulder, shape shoulder, and place mainline and shoulder HMA pavement in a given area prior to opening to traffic at the end of the day. See the Traffic section of these Special Provisions for limits on flagging operations.

Pavement height differences at centerline joints between existing pavement and newly placed HMA pavement shall be less than 1-inch prior to opening lanes to traffic. Post "Uneven Lane" signs (WO8-11) prior to and every 1,500 feet along the height difference. Post signs for northbound and southbound STH 67 traffic.

Post "Low Shoulder" signs (WO8-9) after placing HMA pavement until finished base aggregate shoulders and shaping shoulders is completed. Post signs prior to and every 1,500 feet along low shoulders. If a drop off greater than 2-inches exists between the HMA pavement and aggregate shoulder, prior to opening lanes to traffic, place Base Aggregate Dense ³/₄-Inch at a 4:1 slope to remove the drop off.

Centerline pavement markings shall be applied prior to opening to traffic. Use temporary removable tape 4-inch during the required five day waiting period at locations requiring permanent grooved centerline pavement markings.

Migratory Birds

Swallow and other migratory birds' nests have been observed on or under the existing bridge. 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 Over Waterway with Minimal Debris.

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Northern Long-eared Bat (Myotis septentrionalis)

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

If additional construction activities beyond what was originally specified are required to complete the work, approval from the engineer, following coordination with WisDOT REC, is required prior to initiating these activities.

4. Traffic.

Supplement standard spec 643.3.1 with the following:

Have available at all times sufficient experienced personnel to promptly install, remove and reinstall the required traffic control devices to route traffic in order to perform the operations.

Place traffic control devices for work in the proper location before operations proceed. Traffic Control is subject to change at the direction of the engineer in the event of an emergency.

Provide the Waukesha County Sheriff's Department, the Wisconsin State Patrol, Oconomowoc Police Department, Village of Summit Police Department, and the engineer a current telephone number with which the contractor or his representative can be contacted during non-working hours in the event a safety hazard develops.

Do not park or store equipment, contractor's and personal vehicles or construction materials within the clear zone as designated in the plans on any roadway carrying traffic during working and non-working hours except at locations and periods of time approved by the engineer.

Obtain prior approval from the engineer for the locations of egress or ingress for construction vehicles to prosecute the work.

Do not disturb, remove or obliterate any traffic control signs, advisory signs, sand barrel array, shoulder delineators or beam guard in place along the traveled roadways without the approval of the engineer.

The traffic requirements are subject to change at the direction of the engineer in the event of an emergency.

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Replace standard spec 643.3.1(6) with the following:

Provide 24-hour a day availability of equipment, forces and materials to promptly restore barricades, lights, or other traffic control devices that are damaged or disturbed.

General

Construct the project using the construction staging and traffic control shown in the plans, standard detail drawings, and described in these special provisions.

Keep STH 67 open to through traffic at all times for the duration of this project except where noted below and in the Prosecution and Progress article in these special provisions.

Employ flaggers, signs, barricades, and drums as may be necessary to safeguard and direct vehicular and pedestrian traffic at all locations where construction operations may interfere with or restrict the smooth flow of traffic and to protect and delineate hazards such as open excavations and abrupt drop-offs.

Coordinate traffic requirements under this project with other adjacent and concurrent department and local municipality projects. Contractor is responsible for implementing and coordinating with other contractors all traffic control as shown on the plans. The engineer may require modifications to the traffic control plan to be safe and consistent with adjacent work by others.

Comply with all local ordinances that apply to work operations, including those pertaining to working during nighttime hours. Provide any ordinance variance issued by the municipality or required permits to the engineer in writing 3 days before performing such work.

Peak hours are defined as:

7:00~AM-9:00~AM and 2:00~PM to 6:00~PM, Monday, Tuesday, Wednesday, Thursday and Friday

Staging

Stage the work as shown on the plans or as directed by the engineer. Notify the engineer at least 10 days before traffic control stage changes. Do not conduct traffic control stage changes during peak hours.

Stage 1 Construction:

STH 67 one lane road with temporary signals at B-67-0010. Northbound lane closed – PMA, parapet replacement, and beam guard removal and replacement on east half of B-67-0010. Whitaker Lane intersection work.

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Stage 2 Construction:

STH 67 one lane road with temporary signals at B-67-0010. Southbound lane closed – PMA, parapet replacement, and beam guard removal and replacement on west half of B-67-0010.

Stage 3 Construction:

STH 67 and side road flagging operations – base patching asphaltic, joint and crack repair, asphalt milling, HMA pavement, shouldering, rumble strips, and pavement marking.

Flagging Operations

Flagging operations are required for Stage 3 work as shown on the traffic control plans. Flagging operations shall be limited to 1,900 feet during peak hours and 1 mile at all other times.

Use Temporary Portable Rumble Strip Arrays for flagging operations for the following work operations: base patching, milling, preparing foundation, HMA paving, and base aggregate shouldering. Remove Arrays from the travel lane when flagging operations are completed each day.

Traffic Signal Work at STH 67 and USH 18

Use shoulder closures and right turn lane closures to conduct traffic signal work.

Traffic Control Signs Portable Changeable Message

Place and operate Traffic Control Signs Portable Changeable Message near the beginning and end of Stage 1 seven calendar days before starting roadway construction with the message "WIS 67, BRIDGE WORK" "BEGINS, XX-XX".

Place and operate signs near the beginning and end of Stage 2 three calendar days before starting Stage 2 with the message "New Traffic, Pattern" "Begins, XX-XX".

Place signs near the project limits three calendar days before beginning Stage 3 construction with the message "WIS 67, ROAD WORK, BEGINS, XX-XX".

Access

Inform property owners 2 working days before beginning construction activities in front of driveways on their properties. Short term closures of driveways will be allowed for milling and paving operations. The duration of these closures shall be as short as possible to complete the work in front of the driveway. Maintain access to all driveways at all times other than during milling and paving operations.

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Local Contacts:

| Agency contacts: | | |
|--------------------------------|-----------------|----------------|
| Waukesha County | Gary Evans | (262) 548-7746 |
| Village of Dousman | Office | (262) 965-3792 |
| Village of Summit | Office | (262) 567-2422 |
| City of Oconomowoc | Office | (262) 569-2186 |
| Waukesha County Sheriff | Office | (262) 548-7122 |
| City of Oconomowoc Police | Office | (262) 567-4401 |
| City of Oconomowoc Fire | Office | (262) 569-6428 |
| Village of Dousman Fire | Office | (262) 965-2262 |
| Village of Summit Police | Office | (262) 567-1134 |
| School Contacts: | | |
| Kettle Moraine School District | District Office | (262) 968-6300 |
| Oconomowoc School District | District Office | (262) 560-1115 |

Wisconsin Lane Closure System Advance Notification

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

| Closure type with height, weight, or width restrictions (available width, all lanes in one direction < 16') | MINIMUM NOTIFICATION |
|---|----------------------|
| Lane and shoulder closures | 7 calendar days |
| Full roadway closures | 7 calendar days |
| Ramp closures | 7 calendar days |
| Full ramp closures | 7 calendar days |
| Detours | 7 calendar days |
| | |
| Closure type without height, weight, or width restrictions (available width, all lanes in one direction >16') | MINIMUM NOTIFICATION |
| Lane and shoulder closures | 3 business days |
| 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. 108-057 (20160607)

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5. Holiday and Event Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 67 or USH 18 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 and event periods:

- From noon Friday, May 26, 2017 to 6:00 AM Tuesday, May 30, 2017 for Memorial Day;
- From 6:00 PM Friday, June 9, 2017 to 6:00 AM Tuesday, June 20, 2017 for the US Open;
- From noon Friday, June 30, 2017 to 6:00 AM Wednesday, July 5, 2017 for Independence Day;
- From noon Friday, September 1, 2017 to 6:00 AM Tuesday, September 5, 2017 for Labor Day.

107-005 (20050502)

6. Utilities.

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

There are underground and overhead utility facilities with the project limits. There are known utility adjustments required for this construction project. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to ensure the integrity of the underground and overhead facilities.

Bidders are advised to contact each utility company listed in the plans, before preparing their bids, to obtain current information on the status of existing and new utility work.

If utility relocations are required during construction operations coordination with utilities will be required to minimize impacts during construction.

Century Link has underground facilities within the construction project limits. The existing underground facilities are located along the east side of STH 67 from Station 103+65 to Station 176+00 and along the west side of STH 67 from Station 114+00 to Station 176+00.

No conflicts are anticipated. The field contact for construction will be Mark Murn and can be reached at (262) 392-5210 or mark.murn@centurylink.com.

Kettle Moraine School District has underground facilities with in the construction project limits. The existing underground fiber optic cable is located at the STH 67 and USH 18 Intersection. It runs along the north side of the east leg of USH 18 to a hand hole in the NW

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corner of the intersection, crossing under STH 67 at Station 110+00. From the handhole the cable heads south along the west side of STH 67.

No conflicts are anticipated. The field contact for construction will be Adam Shirek and can be reached at (920) 676-3799 or ashirek@mcae.biz.

Oconomowoc Utilities – Electric has above ground facilities with in the construction project limits. The existing single phase transformer is located in the northwest corner of the intersection of STH 67 and CTH DR.

No conflicts are anticipated. The field contact for construction will be Casey Lemke and can be reached at (262) 569-2196 or clemke@oconomowoc-wi.gov.

Oconomowoc Utilities – Wastewater has underground facilities with in the construction project limits. The existing 15-Inch sanitary sewer is located along the south side of CTH DR and crosses under STH 67.

No conflicts are anticipated. The field contact for construction will be Tom Steinbach and can be reached at (262) 569-2192 or tsteinbach@oconomowoc-wi.gov.

Oconomowoc Utilities – Water has underground facilities with in the construction project limits. The existing 12-Inch water main is located along the south side of CTH DR and crosses under STH 67.

No conflicts are anticipated. The field contact for construction will be Scott Osborn and can be reached at (262) 569-6421 or sosborn@oconomowoc-wi.gov.

Paetec has above ground facilities with in the construction project limits. The above ground fiber cable is located along the south side of USH 18 and crosses STH 67 south of the intersection.

No conflicts are anticipated. The field contact for construction will be Jim Kostuch and can be reached at (262) 792-7938 or james.kostuch@windstream.com.

Time Warner Cable has underground and aerial facilities within the construction project limits. The existing facilities are located along both sides of USH 18 and both sides of STH 67 from Station 103+65 to USH 18 and from Station 207+00 to Station 245+00.

No conflicts are anticipated. The field contact for construction will be Steve Cramer and can be reached at (414) 277-4045 or steve.cramer@twcable.com.

We-Energies – **Electric** has underground and aerial facilities within the construction project limits. The facilities are located along both sides of USH 18, CTH DR, and STH 67.

No conflicts are anticipated. The field contact for construction will be Bryan Stoehr and can be reached at (414) 944-5516 or bryan.stoehr@we-energies.com.

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We-Energies – **Gas** has underground facilities within the construction project limits. An existing 8-inch main runs along the east side of STH 67 for the entire length of the project. An existing 16-inch high pressure line runs along the west side of STH 67 for the entire length of the project.

We-Energies – Gas has one gas main relocation and one repair to an existing test stand on the existing 16-inch high pressure line. The distribution facilities that are currently located just off the east edge of pavement along STH 67 north of USH 18 150 feet north of the center line of USH 18 will be relocated out to 21 feet south of the north right-of-way line, crossing to the south at Station 301+61. The replacement will continue to the west following the right-of-way line at about 23 feet north of the south right-of-way, crossing to the west at 106+96, continuing west along the right-of-way 10 feet north of south right-of-way line. Tying back into the existing at 295+66 23 feet right of center line of USH 18. Excavation will be needed to repair an existing test stand on the existing 16-inch high pressure line which is at the edge of pavement at about Station 299+56.

We-Energies plans to relocate and repair its facilities prior to construction. The field contact for construction will be Danielle Fink and can be reached at (414) 944-5627 or Danielle.fink@we-energies.com.

WisDOT Signal has underground and above ground facilities within the construction project limits. The existing facilities are located at the following intersections with STH 67: USH 18, Roundy's entrance, and CTH DR.

No conflicts are anticipated. The field contact for construction will be WisDOT Signal Operations and can be reached at (414) 750-2605 or 414-266-1170.

7. Erosion Control.

The contractor shall prepare and submit an erosion control implementation plan (ECIP) for the project including borrow sites, material disposal sites, dust control, and dewatering according to Chapter TRANS 401 requirements. The erosion control implementation plan shall supplement information shown on the plans and shall not reproduce it. The erosion control implementation plan shall identify how the contractor intends to implement the project's erosion control plan.

Provide the ECIP 14 calendar days prior to the pre-construction conference. Provide 1 copy of the ECIP to WisDOT and 1 copy of the ECIP to the WDNR Liaison Craig Webster. Pursue operations in a timely and diligent manner, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-topsoiling to minimize the period of exposure to possible erosion. Do not implement the ECIP until it has been approved by the department.

For grading areas adjacent to or containing wetlands, floodplains, or waterways, complete rough grading through finished landscaping within 14 calendar days.

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For all other grading areas, if the duration from beginning rough grading to completing final landscaping will be longer than 14 days, within 3 days of beginning rough grading seed the area with temporary seed and mulch.

Stockpile excess material or spoils on upland areas away from wetlands, floodplains and waterways. Protect stockpiled soil against erosion. If stockpiled material is to be left for more than 14 calendar days, seed the stockpile with temporary seed and mulch within 3 days of creation

When performing roadway cleaning operations, the contractor shall use equipment having vacuum or water spray mechanism to eliminate the dispersion of dust. If vacuum equipment is employed, it shall have suitable self-contained particulate collectors to prevent discharge from the collection bin into the atmosphere.

Do not pump water from the construction site to a storm water conveyance without the water first passing through a sediment trap or filter bag.

8. Environmental Protection, Aquatic Exotic Species Control.

Exotic invasive organisms such as VHS, zebra mussels, purple loosestrife, and Eurasian water milfoil are becoming more prolific in Wisconsin and pose adverse effects to waters of the state. Wisconsin State Statutes 30.07, "Transportation of Aquatic Plants and Animals; Placement of Objects in Navigable Waters", details the state law that requires the removal of aquatic plants and zebra mussels each time equipment is put into state waters.

At construction sites that involve navigable water or wetlands, use the follow cleaning procedures to minimize the chance of exotic invasive species infestation. Use these procedures for all equipment that comes in contact with waters of the state and/or infested water or potentially infested water in other states.

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels prior to being used in other waters of the state. Before using equipment on this project, thoroughly disinfect all equipment that has come into contact with potentially infested waters. Use the following inspection and removal procedures (guidelines from the Wisconsin Department of Natural Resources http://dnr.wi.gov/topic/fishing/documents/vhs/disinfection protocols.pdf for disinfection:

- 1. Prior to leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
- 2. Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;
- 3. Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can prior to leaving the area or invested waters; and

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- 4. Disinfect your boat, equipment and gear by either:
 - a. Washing with ~212° F water (steam clean), or
 - b. Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
 - c. Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore this disinfect should be used in conjunction with a hot water (>104° F) application.

Complete the inspection and removal procedure before equipment is brought to the project site and before the equipment leaves the project site. 107-055 (20130615)

9. Archaeological Site Protection.

Archaeologically significant sites exist in the project area as follows:

| Site | Location |
|------------------------------|--|
| 47WK638/BWK-0300 (Mauna Loa) | Station 247+00 to Station 261+00 LT |
| 47WK182 | Station 114+00 to Station 127+00 LT&RT |

Do not use these sites for borrow or waste disposal. Do not use the site area not currently capped by asphalt or concrete for the staging of personnel, equipment, and/or supplies. For site 47WK638/BWK-0300 (Mauna Loa), if ground disturbance beyond the existing right-of-way limits becomes necessary, for site 47WK182, if ground disturbance beyond the existing base of ditch becomes necessary, provide two week notice to the Bureau of Technical Services, Environmental Services Section (ESS) before doing any work in the areas of these sites. ESS will provide a qualified archaeologist to be on site at all times when work occurs near the areas. The contact at ESS is Jim Becker, (608) 261-0137 or Lynn Cloud, (608) 266-0099.

If a potentially significant archaeological feature or material is discovered during construction operations, the qualified archaeologist will promptly coordinate with the engineer and with ESS to determine an appropriate course of action.

10. Construction Over or Adjacent to Navigable Waters.

Add the following to standard spec 107.19:

The Bark River is classified as a navigable waterway. 107-060 (20150630)

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

John Roelke, License Number All-119523, inspected Structure B-67-0010 for asbestos on October 27, 2014. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Gary Metzer, (262) 548-5685.

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 Gary Metzer, (262) 548-5685 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-67-0010, STH 67 over Bark River
- Site Address: Latitude 430132.36, Longitude 882744.32, Village of Summit
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow Street, PO Box 798, Waukesha, WI 53178-0798
- · Contact: Gary Metzer
- Phone: (262) 548-5685
- Age: 63 years old. This structure was constructed in 1953.
- Area: 1228 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)

12. Removing Old Structure Over Waterway With Minimal Debris Station 120+50, Item 203.0600.S.01.

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

Add the following to standard spec 203:

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

(1) Remove the existing Structure B-67-0010 over the Bark River in large sections and conforming to the contractor's approved structure removal and clean-up plan. During superstructure removal, prevent all large pieces and minimize the number of small pieces from entering the waterway or wetland. Remove all reinforcing steel, all concrete, and

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all other debris that falls into the waterway or wetland. The contractor may leave limited amounts of small concrete pieces scattered over the waterway floor or wetland only if the engineer allows.

- (2) Submit a structure removal and clean-up plan as part of the erosion control implementation plan required under standard spec 107.20. Do not start work under the structure removal and clean-up plan without the department's written approval of the plan. Include the following information in the structure removal and clean-up plan:
 - Methods and schedule to remove the structure.
 - Methods to control potentially harmful environmental impacts.
 - Methods for superstructure removal that prevent all large pieces and minimize the number of small pieces from entering the waterway or wetlands.
 - Methods to control dust and contain slurry.
 - Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require.
 - Methods for cleaning the waterway or wetlands.
- (3) If stockpiling spoil material, place it on an upland site an adequate distance from the waterway, wetland, or any open water created by excavation. Install silt fence between the spoil pile and the waterway, wetland, or excavation site.

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---------------|---|------|
| 203.0600.S.01 | Removing Old Structure Over Waterway With | LS |
| | Minimal Debris Station 120+50 | |

203-020 (20080902)

13. 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.

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- (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-rsrces/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:

| Plan Quantity | Minimum Required Testing |
|------------------------------------|---|
| \leq 1500 tons | One test from production, load-out, or |
| | placement at the contractor's option ^[1] |
| > 1500 tons and ≤ 6000 tons | Two tests of the same type, either from |
| | production, load-out, or placement at the |
| | contractor's option ^[1] |
| $>$ 6000 tons and \leq 9000 tons | Three placement tests ^{[2][3]} |

- 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.

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

B Materials

B.1 Quality Control Plan

- (1) Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.
- (2) Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories as changes are adopted. Ensure that the plan provides the following elements:
 - 1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
 - 2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
 - 3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
 - 4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
 - 5. Descriptions of stockpiling and hauling methods.
 - 6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
 - 7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.2 Personnel

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

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

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

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(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

 $\underline{\text{http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/qual-} \\ \underline{\text{labs.aspx}}$

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.
- 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.

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(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:

(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.

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- (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.

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- (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.

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- (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.

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(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)

14. Incentive IRI Ride.

Supplement standard spec 440.1 (2) with the following:

This section applies to the following station range:

STH 67 Station 103+65 to Station 245+30

15. HMA Overlay Polymer-Modified, Item 509.3500.S.

A Description

This special provision describes providing a polymer-modified HMA overlay on bridge decks.

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B Materials

B.1 Mixture Composition

Furnish a mixture composed of fine and coarse aggregates, mineral filler if used, asphalt cement, and polymer modifier additive. Ensure that the final job mix design conforms to polymer modifier manufacturer requirements and is approved by the engineer.

Use fine and course aggregate conforming to standard spec 460.2.2. Do not use blast furnace slag, expanded shale, porous limestone, lightweight aggregates, or other porous aggregate. Ensure that mineral filler, if used, conforms to standard spec 450.

Use asphalt cement conforming to standard spec 455 and virgin thermoplastic polymer modifier additive. Furnish additive packaged in 22.5-pound meltable polyethylene bags, in 2,025-pound super sacks containing 45 units per sack, or as bulk material in tankers.

B.2 Deck Preparation Materials

Furnish tack coat and edge sealer conforming to the polymer modifier manufacturer's requirements. Furnish rubberized asphalt joint sealer conforming to ASTM D3405, or if the polymer modifier manufacturer recommends, use a 20-inch wide strip of geotextile paving fabric applied according to their recommendations.

C Construction

C.1 General

Ensure that an on-site polymer modifier manufacturer representative oversees mixture production, placement, and compaction of polymer-modified HMA.

C.2 Proportioning and Mix Design

Seven days before the pre-construction meeting, submit the name and location of the intended sources for bituminous pavement products. Furnish HMA mixture from an engineer-approved automated plant conforming to ASTM D995 and SS405 and equipped with interlocks and printouts.

Coordinate with the polymer modifier manufacturer to formulate a job mix formula (JMF). Submit a JMF to the engineer that shows the gradation and conforms to the generic requirements under this special provision. As a part of the submittal include the following:

- Mineral aggregate sources and types.
- Grade and source of bituminous material.
- Type and source of all asphalt modifiers.
- Samples of aggregates to be used.

Submit a complete HMA mix design to the engineer according to department test method 1559 described in CMM 8.65.5. Submit a new JMF for engineer review if changing the production plant, aggregate, asphalt, or asphalt modifier.

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C.3 Verification of the JMF

Unless the asphalt content (AC) of specimens used to develop the JMF is the same as the proposed design AC, prepare additional specimens at the proposed AC to ensure that gyratory test results accurately represent the design.

Generic Formulation of the PolymerModified HMA Mixture

| Sieve Size, metric (imperial) | Nominal size of aggregate/Percent passing 9.5mm | Gradation Control on JMF |
|-------------------------------|---|-----------------------------|
| 12.5 mm (1/2") | 100 | ± 7 % |
| 9.5 mm (3/8") | 90 – 100 | ± 7 % |
| 4.75 mm (#4) | 55 – 85 | ± 7 % |
| 2.36 mm (#8) | 32 - 67 | ± 4 % |
| 1.18 mm (#16) | Report | ± 4 % |
| 600 microns (#30) | Report | ± 4 % |
| 300 microns (#50) | 7 – 23 | ± 4 % |
| 150 microns (#100) | Report | ± 4 % |
| 75 microns (#200) | 2 – 10 | ± 2 % |

AC (% Total Mix) 5.0% minimum
Thermoplastic Polymer 2.25% by weight of total mix

Generic Minimum/Maximum Desired Physical Properties of the Design Mixture

| Volumetric mix design parameters | | | |
|----------------------------------|--------------------------------------|---|--|
| Volumetric parameter | Control requirement | Nominal size of aggregate/percent passing | |
| | | 9.5mm | |
| (| Gyratory volumetric require | ements | |
| VMA | Minimum | 16.5% | |
| VFA | Minimum | 90.0% | |
| %G _{mm} | @ N _{ini} (6 gyrations) | >87.0% | |
| %G _{mm} | @ N _{des} (50 gyrations) | 99.0% | |
| %G _{mm} | @ N _{max} (75 gyrations) | >99.0% | |

Target Void Percentage: 1%

Weigh and heat aggregates for batching in an oven to 401 - 419 F. Add polymer modifier at a rate of 45 pounds per ton of mix or 2.25 percent of total batch weight. Dry mix the heated aggregate and the polymer modifier for 10 seconds at 374 - 383 F; introduce AC-binder at 302 - 320 F; and mix together for 90 seconds. Mix until aggregates are completely and uniformly coated. Verify that the temperature of the finished mix is 347 - 374 F. After mixing is completed, condition the material according to AASHTO R30 before compacting.

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Compact at 338 - 356 F. Evaluate the gyratory specimen at N_{ini}= 6, N_{des}=50, and N_{max}=75 gyrations regardless of class designation or aggregate structure.

After reviewing the JMF, the engineer will authorize initial placement. Once production begins, provide the engineer daily certification that in-place materials conform to the JMF and contract specifications.

Polymer modifier manufacturer personnel shall certify material production, take samples, and are authorized to reject material not meeting contract specifications. The polymer modifier manufacturer shall retain samples available upon engineer request for department examination and testing throughout the contract duration. The engineer may take additional independent samples and examine certifications to verify material quality.

Provide the engineer with access to the plant and equipment as necessary to review and verify certifications of material quality. The engineer may reject affected mixture placed if the contractor fails to perform quality control or submits an incorrect certification. The engineer may halt production and require the contractor to dispose of material due to temperature, oxidation, contamination, segregation, or incomplete coating of aggregate. The engineer may base rejection on visual inspection.

C.4 Deck Preparation

After deck patching and before placing polymer-modified HMA, prepare the deck surface. Cure the repaired deck a minimum of 7 days before placing the polymer-modified HMA overlay. Ensure that a polymer modifier manufacturer representative is present to oversee edge sealer and tack coat application.

Prepare the entire deck surface area by shot blasting. Include the vertical face of curbs or parapets to the specified finish overlay surface elevation. Collect and dispose of used steel shot and dust. Remove pavement-marking lines within the cleaning area to prevent bleeding through the tack coat. After shot blasting operations, clean the deck by sweeping, air blasting, pressure washing, or other engineer-approved method.

Clean the existing surfaces to remove any milled material or debris which would reduce or prevent bonding. Ensure that the surface is clean, dry, and free from loose debris or other contaminants. Saw cut and seal construction joints. Apply edge sealer and tack coat. Place an impermeable hot-mix waterproofing asphalt course on the cleaned and tack coated bridge deck, to the lines, grades, width, and depth the plans show.

Seal all edges of the planned day's placement of the asphalt waterproofing course with 4-6 inches of edge sealer applied at the manufacturer specified rate. Ensure that vertical edges of headers, drains, scuppers, expansion joints, or other areas where compaction may be difficult to achieve are adequately sealed. For vertical edges, apply sealer from the specified finish overlay surface elevation and out horizontally 4-6 inches. Maximize drying time by sealing as early as possible on the day of, or even the day before, overlay placement.

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C.5 Placement

Before placing tack coat, ensure that the deck moisture is 6 percent or less. Apply tack coat at a rate of 0.07 to 0.15 gallons per square yard without puddles for concrete decks and at 0.04 to 0.1 gallons per square yard for steel decks. Cover and protect all deck drains and joints before paving.

Place the polymer-modified material in a uniform 2-inch thick layer.

Seal butt joints made during paving that have cooled below 150 F before placing the adjoining asphalt lift. Saw cut construction joints 1/2 inch wide and fill to within 1/8 inch of the surface with joint sealer. Do not overfill sawed joints since excess sealer will cause surface ripples requiring contractor correction.

Apply edge sealer to all terminations of the paved asphalt, including curb lines and deck joints, as soon as possible after the pavement has cooled.

C.6 Compaction

Because of higher compaction temperatures, use extra water applied evenly across the mat to keep material from sticking to the steel rolls.

Compact within a temperature range of 212 - 374 F conforming to standard spec 450.3.2.6. Use a minimum of two static rollers, one for break down and one for finish rolling. Have a third roller available on the job as a backup. Ensure that roller unit compression is 250 pounds or more per inch of driving roll width. Use three-wheel and tandem steel-wheel rollers with a manufacturer's rating of eight tons or more or use three-axle tandem steel-wheel rollers with a manufacturer's rating of 12 tons or more. Do not use pneumatic tired rollers. The contractor may use other compaction means in areas that cannot be accessed by the specified roller. The contractor may use an asphalt vibrator wacker with a water system.

Breakdown roll closely behind the spreading operation and finish roll to remove mat imperfections. Use a straight rolling pattern aligned with the paving direction. Do not turn except as necessary to move from pass to pass. Use the pattern and frequency the polymer modifier manufacturer's representative specifies. Do not change paving or rolling procedures without approval from the polymer modifier manufacturer's representative.

The department will waive the contract QMP HMA pavement nuclear density requirements for polymer-modified HMA overlay work.

D Measurement

The department will measure HMA Overlay Polymer-Modified by the ton, acceptably completed.

E Payment

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

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ITEM NUMBER DESCRIPTION UNIT 509.3500.S HMA Overlay Polymer-Modified TON

Payment is full compensation for providing overlays including mixture design and surface preparation; and for the polymer modifier manufacturer's on-site mix production and placement oversight.

The department will pay separately for repairs under the Curb Repair, Concrete Surface Repair, and Full-Depth Deck Repair bid items as specified in standard spec 509. 509-035 (20141107)

16. Removing Asphaltic Concrete Deck Overlay B-67-0010, Item 509.9010.S.01.

A Description

Remove the asphaltic concrete overlay with or without an underlayment of waterproof membrane by milling the entire bridge deck according to standard spec 204, the plans, and as hereinafter provided.

B (Vacant)

C Construction

C.1 Milling

Use a self-propelled milling machine that is specially designed and constructed for milling bridge decks. It shall mill without tearing or gouging the concrete masonry underlying the deck overlay. The machine shall consist of a cutting drum with carbide or diamond tip teeth. Space the teeth on the drum to mill a surface finish that is acceptable to the engineer.

Shroud the machine to prevent discharge of any loosened material into adjacent work areas or live traffic lanes. Equip the machine with electronic devices that provide accurate depth, grade and slope control, and an acceptable dust control system.

Perform milling in a manner that precludes damage to the bridge floor and results in a uniform textured finish that:

- Is free of sharp protrusions;
- Has uniform transverse grooves that measure up to ½-inch vertically and transversely; and
- If applicable, is acceptable to the manufacturer of the sheet waterproof membrane.

Windrowing or storing of the removed milled asphaltic concrete on the bridge is only permitted in connection with the continuous removal and pick-up operation. During nonworking hours, clear the bridge of all materials and equipment.

C.2 Cleaning

Blast-clean the entire surface of the deck, the vertical faces of curbs, sidewalks, and parapets to the depth of the adjoining overlay.

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Clean the surface on which the new overlay will be placed to remove all loose particles and dust by either brooming and water pressure using a high-pressure nozzle, or by water and air pressure. Use water for cleaning that conforms to specifications for water under standard spec 501.2.4.

The removed asphaltic concrete shall become the property of the contractor; properly dispose of it according to standard spec 204.

D Measurement

The department will measure Removing Asphaltic Concrete Deck Overlay in area by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER DESCRIPTION UNIT 509.9010.S.01 Removing Asphaltic Concrete Deck Overlay B-67-0010 SY

Payment is full compensation for removing the asphaltic concrete with or without an underlayment of waterproof membrane; cleaning the concrete surfaces; and for properly disposing of all materials.

509-010 (20110615)

17. Barrier System Grading Shaping Finishing, Item 614.0010.

Supplement standard spec 614.3.2.5 (1) with the following:

Erosion Mat.....standard spec 628

Supplement standard spec 614.5 (15) with the following:

Payment for Barrier System Grading Shaping Finishing also includes compensation for providing erosion mat when the barrier system is outside the contract grading limits. If the work specified in standard spec 614.3.2.5 fall within the contract grading limits, the department will pay separately for that work under erosion mat bid items.

18. Pavement Marking Grooved Wet Reflective Tape 4-Inch, Item 646.0881.S; 8-Inch, Item 646.0883.S.

A Description

This special provision describes furnishing, grooving and installing preformed wet reflective pavement marking tape for grooved applications as shown on the plans, according to standard spec 646, and as hereinafter provided.

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B Materials

Furnish grooved wet reflective pavement marking tape and adhesive material per manufacturer's recommendations, if required, from the department's approved products list.

Furnish a copy of the manufacturer's recommendations to the engineer before preparing the pavement marking grooves.

C Construction

C.1 General

For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of pavement marking tape.

Plane the grooved lines according to details in the plan and per manufacturer's recommendations. Use grooving equipment with a free-floating, independent cutting head. Plane a minimum number of passes to create a grooved surface per manufacturer's recommendations.

C.2 Groove Depth

Cut the groove to a depth of $120 \text{ mils} \pm 10 \text{ mils}$ from the pavement surface or, if tined, from the high point of the tined surface. To measure the depth, the contractor may use a depth plate placed in the groove and a straightedge placed across the plate and groove, or the contractor may use a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Longitudinal Markings

Cut the groove one-inch wider than the width of the tape.

C.4 Groove Position

Position the groove edge according to plan details. Groove a minimum of 4 inches, but not greater than, 12 inches from both ends of the tape segment. Achieve straight alignment with the grooving equipment.

C.5 Groove Cleaning

C.5.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with high-pressure water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, and prior to pavement marking application. The groove surface shall be clean and dry before applying the adhesive, and pavement marking tape. Use a high-pressure air blower with at least 185 ft³/min air flow and 120 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

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C.5.2 New Asphalt

Groove pavement five or more days after paving.

Use a high-pressure air blower with at least 185 ft³/min air flow and 120 psi air pressure to clean the groove.

C.5.3 Existing Asphalt

Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

Use a high-pressure air blower with at least 185 ft³/min air flow and 120 psi air pressure to clean the groove.

C.6 Tape Application

Apply the wet reflective pavement marking tape when both the air and surface temperature are 40 degrees F and rising.

Apply tape in the groove as per manufacturer's recommendations. If manufacturer's recommendations require surface preparation adhesive

- 1) For the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee:
 - Apply SPA-60 during May 1 to September 30, both dates inclusive due to Volatile Organic Compound Limitations.
 - Apply P-50 during October 1 to April 30, both dates inclusive.
- 2) For the remainder counties:
 - Apply either adhesive.

Refer to the manufacturer's instructions for determining when the surface preparation adhesive is set.

Tamp the wet reflective pavement marking tape with a tamper cart roller, with a minimum of a 200-lb load, cut to fit the groove. Tamp a minimum of three complete cycles (6 passes) with grooved modified tamper roller cart.

D Measurement

The department will measure Pavement Marking Grooved Wet Reflective Tape (Width) for grooved applications in length by the linear foot of tape, placed according to the contract and accepted.

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E Payment

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|-------------|---|------|
| 646.0881.S | Pavement Marking Grooved Wet Reflective Tape 4-Inch | LF |
| 646.0883.S | Pavement Marking Grooved Wet Reflective Tape 8-Inch | LF |

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the material; and for removing temporary pavement marking, if necessary. 646-018 (20120615)

19. Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch, Item 646.0841.S; 8-Inch, Item 646.0843.S.

A Description

This special provision describes furnishing, grooving and installing preformed wet reflective pavement marking contrast tape for grooved applications as shown on the plans, according to standard spec 646, and as hereinafter provided.

B Materials

Furnish wet reflective pavement marking contrast tape and adhesive material, per manufacturer's recommendation if required, from the department's approved products list.

Furnish a copy of the manufacturer's recommendations to the engineer before preparing the pavement marking grooves.

C Construction

C.1 General

For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of pavement marking contrast tape.

Plane the grooved lines according to details in the plan and per manufacturer's recommendations. Use grooving equipment with a free-floating, independent cutting head. Plane a minimum number of passes to create a grooved surface per manufacturer's recommendations.

C.2 Groove Depth

Cut the groove to a depth of $120 \text{ mils} \pm 10 \text{ mils}$ from the pavement surface or, if tined, from the high point of the tined surface. To measure the depth, the contractor may use a depth plate placed in the groove and a straightedge placed across the plate and groove, or the contractor may use a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Longitudinal Markings

Cut the groove one-inch wider than the width of the tape.

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C.4 Groove Position

Position the groove edge according to plan details. Groove a minimum of 4 inches, but not greater than, 12 inches from both ends of the tape segment. Achieve straight alignment with the grooving equipment.

C.5 Groove Cleaning

C.5.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with high-pressure water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, and prior to pavement marking application. The groove surface shall be clean and dry before applying the adhesive, and the pavement marking tape. Use a high-pressure air blower with at least 185 ft³/min air flow and 120 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 New Asphalt

Groove pavement five or more days after paving.

Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove.

C.5.3 Existing Asphalt

Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove.

C.6 Tape Application

Apply the tape when both the air and surface temperature are 40 degrees F and rising.

Apply tape in the groove as per manufacturer's recommendations. If manufacturer's recommendations require surface preparation adhesive

- 1) For the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee:
 - Apply SPA-60 during May 1 to September 30, both dates inclusive due to Volatile Organic Compound Limitations..

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• Apply P-50 during October 1 to April 30, both dates inclusive. –

2) For the remainder counties:

Apply either adhesive.

Refer to the manufacturer's instructions for determining when the surface preparation adhesive is set.

Tamp the wet reflective pavement marking contrast tape with a tamper cart roller, with a minimum of a 200-lb load, cut to fit the groove. Tamp a minimum of three complete cycles (6 passes) with grooved modified tamper roller cart.

D Measurement

The department will measure Pavement Marking Grooved Wet Reflective Contrast Tape (Width) for grooved applications in length by the linear foot of tape, placed according to the contract and accepted.

E Payment

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|-------------|--|------|
| 646.0841.S | Pavement Marking Grooved Wet Reflective Contrast | LF |
| | Tape 4-Inch | |
| 646.0843.S | Pavement Marking Grooved Wet Reflective Contrast | LF |
| | Tape 8-Inch | |

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the material; and for removing temporary pavement marking, if necessary. 646-022 (20120615)

20. Pavement Marking Epoxy 4-Inch, Item 646.0106; Temporary Pavement Marking Epoxy 4-Inch, Item 649.0403.

STH 67:

- Apply Temporary Pavement Marking Epoxy 4-Inch Yellow centerline markings on the same day as milling and paving operations. Apply temporary pavement markings before opening lanes to traffic as shown in the plans.
- Apply Pavement Marking Epoxy 4-Inch Yellow centerline markings within 7 days after centerline rumble strip operations.

21. Locating No-Passing Zones, Item 648.0100.

For this project, the spotting sight distance in areas with a 55 mph posted speed limit is 0.21 miles (1108 feet). 648-005 (20060512)

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22. Traffic Signals, General.

Note that the failure to comply with the state standards and specifications may result in the cost of corrections to be made at the contractor's expense. Also, any additional disruption of State-owned facilities shall be repaired or relocated as needed at the contractor's expense.

Notify the department's Electrical Field Unit at (414) 266-1170 at least three weeks prior to the beginning of the traffic signal work.

23. General Requirements for Electrical Work.

Replace standard spec 651.3.3 (3) with the following:

(3) Request a signal inspection of the completed signal installation to the engineer at least five working days prior to the time of the requested inspection. Notify the department's Electrical Field Unit at (414) 266-1170 to coordinate the inspection. The department's Region Electrical personnel will perform the inspection. In the event of deficiencies, request a re-inspection when the work is corrected. The engineer will not authorize turn-on until the contractor corrects all deficiencies.

24. Electrical Conduit, 652.

Replace standard spec 652. 5 (2) with the following:

(2) Payment for Conduit Rigid Metallic, Conduit Rigid Nonmetallic, Conduit Reinforced Thermosetting Resin, and Conduit Special bid items is full compensation for providing the conduit, conduit bodies, and fittings; for providing all conduit hangers, clips, attachments, and fittings used to support conduit on structures; for pull wires or ropes; for expansion fittings and caps; for making necessary connections into existing pull boxes; for excavating, bedding, and backfilling, including any sand, concrete, or other required materials; for disposing of surplus materials; and for making inspections.

Replace standard spec 652.5 (5) with the following:

(5) Payment for Conduit Loop Detector is full compensation for providing all materials, including conduit, compacted backfill, surface sealer if required, pull wire if required, conduits, conduit fittings, and for making necessary connections into existing pull boxes.

25. Electrical Wiring, 655.

Replace standard spec 655.5 (11) with the following:

(11) Payment for Loop Detector Wire is full compensation for furnishing and installing loop detector wire; for making necessary connections to the lead in cable; and for measuring the loop inductance and ground resistance.

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Replace standard spec 655.3.10 with the following:

- (1) Under the Traffic Signal EVP Detector Cable bid item, provide the EVP cable and mount department furnished brackets. The department will determine the exact location to ensure that the installation does not create a sight obstruction.
- (2) Ensure that the cable runs continuously without splicing from the pull box closest to the cabinet including the specified extra cable. Do not splice EVP cable from the detector assembly to the controller terminations. Provide 10 feet of extra cable at the mounting bracket 2.5 feet extending out of the mounting bracket. Provide 10 feet of extra cable in each pull box plus an additional 20 feet at the nearest pull box to signal base where the EVP detector head is mounted.
- (3) Mark each end of the lead as noted on the plan sheet. For a cabinet that is not operating the signal, the contractor will terminate the ends and install the discriminators and card rack in the cabinet. If the cabinet is operating the signal, the cabinet wiring will be done by the department.
- (4) Notify the engineer upon completion of the installation at each intersection.

Replace standard spec 655.5 (12) with the following:

(12) Payment for Traffic Signal EVP Detector Cable is full compensation for providing emergency vehicle preemption detector cable and mounting the department furnished brackets; and for making all necessary connections.

26. Traffic Signal Faces, 658.0110 and 658.0115.

Append standard spec 658.3.2(3) with the following:

(3) Connect all ungrounded conductors with wire nuts in the appropriate sections of the signal heads. Connect the neutral conductors to the terminal strip. Be certain to twist wires prior to installing the wire nuts. All wire nuts must be installed facing up to prevent the entrance of water.

27. Concrete Masonry Deck Patching, Item SPV.0035.01.

A Description

This special provision describes constructing a grade E concrete masonry deck patching course on the sawed deck preparation areas of the concrete bridge deck according to standard spec 502 and 509, as shown on the plans, and as hereinafter provided.

B (Vacant)

C Construction

Construct according to the applicable methods specified in standard spec 502 and 509.

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Immediately before placing the concrete deck patching, coat the prepared surfaces with a neat cement mixture. Mix the neat cement in a water-cement ratio approximately equal to five gallons of water per 94 pounds of cement. Ensure the prepared concrete surfaces are moist without any standing water before coating with the neat cement mixture. Brush the neat cement mixture over the prepared concrete surfaces to ensure that all parts receive an even coating, and do not allow excess neat cement to collect in pockets. Apply the neat cement at a rate that ensures the cement does not dry out before being covered with the new concrete.

Place concrete according to standard spec 509 for concrete masonry overlay grade E concrete. The slump of the grade E concrete may be increased to three inches and ready-mixed concrete will be permitted. As determined by the engineer in the field, consolidate smaller areas by internal vibration, strike them off, and finish the areas with hand floats to produce plane surfaces that conform to the grade and elevation of the adjoining surfaces. Give all deck patching areas a final hand float finish.

Cure the concrete masonry deck patching according to the requirements of standard spec 502.2.6.1. Before cleaning the deck surface or applying the sheet membrane waterproofing (if applicable), cure the concrete deck patching surfaces for a period of three days and ensure that the deck patching concrete has a minimum compressive strength of 4000 psi.

D Measurement

The department will measure Concrete Masonry Deck Patching by the cubic yard, acceptably completed. The department will not measure wasted concrete. The computation of the measured quantity will be based on the normal cubic yard of concrete as defined in standard spec 501.3.2.2.

E Payment

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

ITEM NUMBER DESCRIPTION UNIT SPV.0035.01 Concrete Masonry Deck Patching CY

Payment is full compensation for furnishing, hauling, preparing, placing, finishing, curing, and protecting all materials.

28. Temporary Portable Rumble Strip Array, Item SPV.0105.06.

A Description

This This special provision describes providing, relocating, maintaining, and removing temporary portable rumble strips.

B Materials

Furnish RoadQuake2 or Roadquake2F temporary portable rumble strips, by Plastic Safety Systems. Do not use alternate products or methods without preapproval by the Bureau of Traffic Operations.

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C Construction

C.1 Placement

Provide rumble strips where the plans show the engineer directs as follows:

- 1. Before placing rumble strips, clean the roadway of dust, sand, and other materials that may cause slippage.
- 2. Place one end of the rumble strips 6 inches from the roadway centerline. Extend the strips perpendicular to the direction of travel so that the front tires of an approaching vehicle will contact the strips at the same time. Ensure strips lay flat on the roadway surface.
- 3. Only one work zone set up, placed before the first work zone, is required per direction of travel for multiple work zones spaced 1 mile or less apart. Work zones spaced greater than 1 mile apart require a separate set up.

C.2 Maintenance

Maintain rumble strips as follows:

- 1. If rumble strips slide, become out of alignment, or are no longer in the wheel path of approaching vehicles during the work period, thoroughly clean both sides of the strips and reset on a clean roadway.
- 2. Repair or replace damaged rumble strips immediately.

D Measurement

The department will measure Temporary Portable Rumble Strips 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 NUMBERDESCRIPTIONUNITSPV.0105.06Temporary Portable Rumble StripsLS

Payment is full compensation for providing, relocating, maintaining or replacing, and removing temporary portable rumble strips.

29. Section Corner Monuments Special, Item SPV.0060.02.

A Description

Coordinate with Southeastern Wisconsin Regional Planning Commission (SEWRPC) for the perpetuation and replacement of a section corner (Public Land Survey System- PLSS) monument.

B Materials

SEWRPC will provide a pre-cast concrete monument or brass disk to be used to mark the PLSS corner.

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Furnish base aggregate dense materials that conform to standard spec 305 and concrete, asphalt, topsoil or other materials depending on the surface surrounding the corner.

C Construction

SEWRPC will perpetuate existing section corner monument. The contractor is responsible to coordinate with SEWRPC and the WisDOT Project Manager throughout the perpetuation and replacement process. The engineer will contact SEWRPC at (262) 953-4295 at least two weeks before starting construction operations or the preconstruction meeting to allow for section corner monument perpetuation.

Contractor must excavate and completely remove the existing monument. Contractor is responsible for providing a backfilled 3 to 4 foot deep hole where existing monument was removed. Contractor is responsible to coordinate the materials and methodology to complete the construction of the surface surrounding the monument. This may include but is not limited to a 2' x 2' "box out" or 24" diameter core hole in concrete, asphalt pavement/paving rings, coring to facilitate poured in place monuments, topsoil, seed and mulching or other materials or methodologies as agreed to by the contractor and SEWPRC.

Contact Information:

Attn: John Washburn Southeastern Wisconsin Regional Planning Commission W239 N1812 Rockwood Drive P.O. Box 1607 Waukesha, WI 53187-1607 Phone (262) 953-4295 Fax (262) 547-1103

E-mail: jwashburn@sewrpc.org

D Measurement

The department will measure Section Corner Monuments Special by the individual unit, acceptably completed.

E Payment

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

ITEM NUMBERDESCRIPTIONUNITSPV.0060.02Section Corner Monuments SpecialEach

Payment is full compensation for furnishing all excavating; removal of existing monument, for placing and compacting backfill material; for disposing of surplus materials; for concrete or asphalt material, finishing of roadway or other surfaces, and for furnishing all coordination with SEWRPC.

621-SER1 (20150616)

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30. Joint And Crack Repair, Item SPV.0090.01.

A Description

This special provision describes joint and crack repair involving removing all loose or spalled concrete and asphaltic patching, cleaning the joints and cracks, and filling with asphaltic material.

B Materials

Furnish asphaltic mixture meeting the requirements specified for Asphaltic Surface under standard spec 465.2.

C Construction

Clean out all joints and cracks. Place asphaltic tack coat. Fill voids with new asphaltic mixture and compact.

D Measurement

The department will measure Joint And Crack Repair 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 NUMBERDESCRIPTIONUNITSPV.0090.01Joint And Crack RepairLF

Payment is full compensation for removing and properly disposing of all loose or spalled concrete and asphaltic patching; for cleaning joints and cracks; and for filling the joints and cracks.

Asphaltic material, asphaltic mixture and tack coat used to fill the joint will be incidental to the completed work.

31. Pavement Marking Grooved Preformed Plastic Tape 8-Inch, Item SPV.0090.02.

A Description

This special provision describes furnishing, grooving, and installing preformed plastic pavement marking tape as shown on the plans, according to standard spec 646, and as hereinafter provided.

B Materials

Furnish grooved preformed plastic pavement marking tape and adhesive material, if required, from the department's approved products list.

Furnish a copy of the manufacturer's recommendations to the engineer before preparing the pavement marking grooves.

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C Construction

C.1 General

For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of pavement marking tape.

Plane the grooved lines according to details in the plan. Use grooving equipment with a free-floating, independent cutting or grinding head. Plane a minimum number of passes to create a smooth groove.

C.2 Groove Depth

Cut the groove to a depth of $120 \text{ mils} \pm 10 \text{ mils}$ from the pavement surface or, if tined, from the high point of the tined surface. Measure depth using a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Longitudinal Markings

Cut the groove one-inch wider than the width of the tape.

C.4 Groove Position

Position the groove edge according to plan details. Groove a minimum of 4 inches, but not greater than, 12 inches from both ends of the tape segment. Achieve straight alignment with the grooving equipment.

C.5 Groove Cleaning

C.5.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, after removal of excess water, and prior to pavement marking application. Clean and dry the groove for proper application of the adhesive, and placement of the pavement marking. Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 New Asphalt

Groove pavement 5 or more days after paving.

If opening to traffic an asphalt lane that is not grooved, place temporary pavement marking. For asphalt lanes not open to traffic, temporary pavement marking is not required.

Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove.

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C.5.3 Existing Asphalt

Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove.

C.6 Tape Application

Apply the tape when both the air and surface temperature are 40 degrees F. and rising.

Apply tape in the groove as per manufacturer's recommendations. If manufacturer's recommendations require surface preparation adhesive, apply an adhesive with lower than 91g/l VOC during the following period of time due to Volatile Organic Compound Limitations:

May 1 to September 30, both dates inclusive – the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee.

Use any adhesive from the preformed plastic approved products list in the remainder counties and for the remainder of the year.

The adhesive must be dry (feels tacky but is no longer in liquid form) and have a matte finish rather than a glossy wet appearance.

Tamp the pavement marking tape with a tamper cart roller cut to fit the groove. Tamp three complete cycles with grooved modified equipment.

D Measurement

The department will measure Pavement Marking Grooved Preformed Plastic Tape (Width) in length by the linear foot of tape, placed according to the contract and accepted.

E Payment

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

ITEM NUMBER DESCRIPTION UNIT SPV.0090.02 Pavement Marking Grooved Preformed Plastic Tape 8-Inch LF

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the material; furnishing, placing, and removing temporary pavement marking, if necessary.

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32. Sawing Pavement Deck Preparation Areas, Item SPV.0090.03.

A Description

This special provision describes sawing the boundaries of the existing concrete on the bridge deck that has been sounded and marked for deck preparation. These boundaries will be at least

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2-inches and not greater than 6-inches outside of the unsound or disintegrated areas of concrete, as directed or marked by the engineer in the field.

B (Vacant)

C Construction

Make the saw cuts, a minimum of 1-inch in depth, at the locations marked.

Use a diamond blade for sawing that will allow the concrete to be sawed dry. Upon completion of the daily sawing, remove the dust deposits from the deck.

D Measurement

The department will measure Sawing Pavement Deck Preparation Areas by the linear foot, acceptably completed.

The department will not measure for payment over-cuts, cuts made beyond the limits marked in the field.

E Payment

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

ITEM NUMBERDESCRIPTIONUNITSPV.0090.03Sawing Pavement Deck Preparation AreasLF

Payment is full compensation for making all saw cuts.

33. Pavement Marking Grooved Preformed Plastic Tape 4-Inch, Item SPV.0090.04

A Description

This special provision describes furnishing, grooving, and installing preformed plastic pavement marking tape as shown on the plans, according to standard spec 646 of the standards specifications, and as hereinafter provided.

B Materials

Furnish grooved preformed plastic pavement marking tape and adhesive material, if required, from the department's approved products list.

Furnish a copy of the manufacturer's recommendations to the engineer before preparing the pavement marking grooves.

C Construction

C.1 General

For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of pavement marking tape.

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Plane the grooved lines according to details in the plan. Use grooving equipment with a free-floating, independent cutting or grinding head. Plane a minimum number of passes to create a smooth groove.

C.2 Groove Depth

Cut the groove to a depth of 120 mils ± 10 mils from the pavement surface or, if tined, from the high point of the tined surface. Measure depth using a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Longitudinal Markings

Cut the groove one-inch wider than the width of the tape.

C.4 Groove Position

Position the groove edge according to plan details. Groove a minimum of 4 inches, but not greater than, 12 inches from both ends of the tape segment. Achieve straight alignment with the grooving equipment.

C.5 Groove Cleaning

C.5.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, after removal of excess water, and prior to pavement marking application. Clean and dry the groove for proper application of the adhesive, and placement of the pavement marking. Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 New Asphalt

Groove pavement 5 or more days after paving.

If opening to traffic an asphalt lane that is not grooved, place temporary pavement marking. For asphalt lanes not open to traffic, temporary pavement marking is not required.

Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove.

C.5.3 Existing Asphalt

Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

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Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove.

C.6 Tape Application

Apply the tape when both the air and surface temperature are 40 degrees F and rising.

Apply tape in the groove as per manufacturer's recommendations. If manufacturer's recommendations require surface preparation adhesive, apply an adhesive with lower than 91g/l VOC during the following period of time due to Volatile Organic Compound Limitations:

May 1 to September 30, both dates inclusive – the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee.

Use any adhesive from the preformed plastic approved products list in the remainder counties and for the remainder of the year.

The adhesive must be dry (feels tacky but is no longer in liquid form) and have a matte finish rather than a glossy wet appearance.

Tamp the pavement marking tape with a tamper cart roller cut to fit the groove. Tamp three complete cycles with grooved modified equipment.

D Measurement

The department will measure Pavement Marking Grooved Preformed Plastic Tape (Width) in length by the linear foot of tape, placed according to the contract and accepted.

E Payment

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

| ITEM NUMBER | DESCRIPTION | | | | UNIT |
|-------------|-------------|----------|---------|-----------|------|
| SPV.0090.04 | Pavement | Marking | Grooved | Preformed | LF |
| | Plastic Tap | e 4-Inch | | | |

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the material; furnishing, placing, and removing temporary pavement marking, if necessary.

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34. Pavement Marking Contrast Grooved Preformed Plastic Tape 4-Inch, Item SPV.0090.05.

A Description

This special provision describes furnishing, grooving, and installing contrast preformed plastic pavement marking tape as shown on the plans, according to standard spec 646, and as hereinafter provided.

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B Materials

Furnish grooved contrast preformed plastic pavement marking tape and adhesive material, if required, from the department's approved products list.

Furnish a copy of the manufacturer's recommendations to the engineer before preparing the pavement marking grooves.

C Construction

C.1 General

For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of pavement marking tape.

Plane the grooved lines according to details in the plan. Use grooving equipment with a free-floating, independent cutting or grinding head. Plane a minimum number of passes to create a smooth groove.

C.2 Groove Depth

Cut the groove to a depth of $120 \text{ mils} \pm 10 \text{ mils}$ from the pavement surface or, if tined, from the high point of the tined surface. Measure depth using a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Longitudinal Markings

Cut the groove one-inch wider than the width of the tape.

C.4 Groove Position

Position the groove edge according to plan details. Groove a minimum of 4 inches, but not greater than, 12 inches from both ends of the tape segment. Achieve straight alignment with the grooving equipment.

C.5 Groove Cleaning

C.5.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, after removal of excess water, and prior to pavement marking application. Clean and dry the groove for proper application of the adhesive, and placement of the pavement marking. Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 New Asphalt

Groove pavement 5 or more days after paving.

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If opening to traffic an asphalt lane that is not grooved, place temporary pavement marking. For asphalt lanes not open to traffic, temporary pavement marking is not required.

Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove.

C.5.3 Existing Asphalt

Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

Use a high-pressure air blower with at least 185 ft³/min air flow and 90 psi air pressure to clean the groove.

C.6 Tape Application

Apply the tape when both the air and surface temperature are 40 degrees F and rising.

Apply the tape in the groove as per manufacturer's recommendations. If manufacturer's recommendations require surface preparation adhesive, apply an adhesive with lower than 91g/l VOC during the following period of time due to Volatile Organic Compound Limitations:

May 1 to September 30, both dates inclusive – the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee.

Use any adhesive from the preformed plastic approved products list in the remainder counties and for the remainder of the year.

The adhesive must be dry (feels tacky but is no longer in liquid form) and have a matte finish rather than a glossy wet appearance.

Tamp the contrast pavement marking tape with a tamper cart roller cut to fit the groove. Tamp three complete cycles with grooved modified equipment.

D Measurement

The department will measure Pavement Marking Contrast Grooved Preformed Plastic Tape (Width) in length by the linear foot of tape, placed according to the contract and accepted.

E Payment

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

ITEM NUMBER DESCRIPTION UNIT
SPV.0090.05 Pavement Marking Contrast Grooved Preformed LF
Plastic Tape 4-Inch

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Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the material; furnishing, placing, and removing temporary pavement marking, if necessary.

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35. Transport Traffic Signal and Lighting Materials, USH 18 & STH 67, Item SPV.0105.01.

A Description

This special provision describes the transporting of department furnished materials for traffic signals and intersection lighting.

B Materials

Transport materials furnished by the department including: Anchor rods, monotube arms/poles and luminaire arms (to be installed on monotube assemblies).

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials FIVE working days prior to picking the materials up.

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2.

C Construction

Perform work according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 except as specified below.

D Measurement

The department will measure Transport Traffic Signal and Lighting Materials, USH 18 & STH 67, as a single lump sum unit of work 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.0105.01 | Transport Traffic Signal and Lighting Materials | LS |
| | USH 18 & STH 67 | |

Payment is full compensation for transporting the anchor rods, monotube poles/arms and luminaire arms (to be installed on monotubes). Installation of these materials is included under a separate pay item.

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36. Remove Traffic Signals, USH 18 &STH 67, Item SPV.0105.02.

A Description

This special provision describes removing existing traffic signals at the intersection of USH 18 and STH 67 according to the pertinent provisions of standard spec 204 and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction

Notify the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to the removal of the traffic signals.

The department assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Any equipment not identified as damaged or not working, prior to removal, will be replaced by the contractor at no cost to the department.

Remove all standards and poles per plan from their concrete footings and disassemble out of traffic. Remove the transformer bases from each pole. Remove the signal heads, mast arms, luminaires, wiring/cabling, and traffic signal mounting devices from each signal standard, arm or pole. Ensure that all access hand hole doors and all associated hardware remain intact. Dispose of the underground signal cable, internal wires and street lighting cable off the state right-of-way. Remove all equipment from the traffic signal cabinet and securely package the equipment. Deliver the remaining materials and cabinet to the West Allis Electrical Service Facility at 935 South 60th Street, West Allis, Milwaukee County. Contact the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to delivery to make arrangements.

D Measurement

The department will measure Remove Traffic Signals (Location) as a single lump sum unit of work for each intersection, acceptably completed.

E Payment

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

ITEM NUMBER DESCRIPTION UNIT SPV.0105.02 Remove Traffic Signals USH 18 & STH 67 LS

Payment is full compensation for removing, disassembling traffic signals, scrapping of some materials, disposing of scrap material, for delivering the requested materials to the department, and incidentals necessary to complete the contract work. 658-SER1 (20101021)

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37. EVP Detector Head Installation, USH 18 & STH 67, Item SPV.0105.03.

A Description

This special provision describes the transporting and installing of department furnished Emergency Vehicle Preemption (EVP) Detector Heads at USH 18 and STH 67.

B Materials

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials five working days prior to picking the materials up.

C Construction

Install the EVP detector heads as shown on the plans. The department will determine the exact location to ensure that the installation does not create a sight obstruction. Mount the EVP detector heads and wire them per manufacturer instructions.

Notify the department's Electrical shop at (414) 266-1170 upon completion of the installation of the Emergency Vehicle Preemption (EVP) Detector Heads.

D Measurement

The department will measure EVP Detector Head Installation (Location) as a single lump sum unit of work, 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.0105.03 EVP Detector Head Installation, USH 18 & STH 67 LS

Payment is full compensation for transporting and installing of department furnished Emergency Vehicle Preemption (EVP) Detector Heads.

38. Transport and Install State Furnished Radar Detection System, USH 18 STH 67. Item SPV.0105.04.

A Description

This special provision describes the transporting and installing of department furnished radar detection system on monotube poles, monotube arms, or luminaire arms.

B Materials

Pick up the department furnished radar system at the department's electrical shop located at 935 South 60th Street, West Allis. Notify the department's electrical field unit (EFU) at (414) 266-1170 to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

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C Construction

Install the department furnished pole/arm mounting brackets, extension arms (if required), and radar units per manufacturer recommendations in the locations determined by the department.

Install the power and communication cable to run continuously (without splices) from the traffic signal cabinet to the pole handhole plus an additional 16-feet in each pull box and an extra 10-feet in the pole handhole. Install the detector unit cable whip from the detector unit to the pole handhole. Splice the detector unit cable whip to the power and communication cable in the pole handhole using the provided junction box. Terminate the ends of the cables and make all connections to the radar units. Make all final cable connections in the traffic signal cabinet.

Mark each end of the lead in the traffic signal cabinet and each cable in the pole handhole to indicate the equipment label (i.e. RA1, RA2, etc.) on the plans.

Notify department's Electrical Shop at (414) 266-1170 and Derrin Wolford at (414) 750-2904 upon completion of the installation and aiming of the radar units.

Assist the department and vendor with fine adjusting of the radar units during the radar system programming, if necessary.

D Measurement

The department will measure Transport and Install State Furnished Radar Detection System as a single lump sum unit of work for each intersection, acceptably completed.

E Payment

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

ITEM NUMBER DESCRIPTION UNIT SPV.0105.04 Transport and Install State Furnished Radar Detection System USH 18 & STH 67

Payment is full compensation for transport and install the radar detection system, cable, mounting hardware, and radar units; and for assisting the department during the radar system programming.

39. Install State Furnished Traffic Signal Cabinet, USH 18 & STH 67, Item SPV.0105.05.

A Description

This special provision describes the installing of the state furnished traffic signal cabinet for traffic signals.

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B Materials

Use materials furnished by the department including: the traffic signal controller and the traffic signal cabinet.

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials five working days prior to picking up the materials.

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2.

C Construction

Perform work according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 except as specified below.

Removal of existing cabinet and installation of new cabinet shall take place within the same off peak period.

Request a signal inspection of the completed signal installation to the engineer at least five working days prior to the installation of the new cabinet. The departments' Region Electrical personnel will perform the inspection.

D Measurement

The department will measure Install State Furnished Traffic Signal Cabinet USH 18 & STH 67 as a single lump sum unit of work, in place and accepted.

E Payment

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

ITEM NUMBERDESCRIPTIONUNITSPV.0105.05Install State Furnished Traffic Signal CabinetLS

USH 18 & STH 67

Payment is full compensation for installing and testing the traffic signal cabinet; for furnishing and installing all other items necessary (such as, wire nuts, splice kits and/or connectors, tape, insulating varnish, ground lug fasteners, etc.) to make the proposed system complete from the source of supply to the most remote unit; and for clean-up and waste disposal.

40. Mortar Surface Repair, Item SPV.0165.01.

A Description

This special provision describes mortar surface repairs to vertical and overhead concrete surfaces as described in the plans. Work shall be according to standard spec 509, except as modified herein.

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B Materials

Replace standard spec 509.2(3) as follows:

Furnish a prepackaged, pre-blended, non-shrink, freeze-thaw resistant, portland cement based repair mortar specifically listed by the manufacturer as suitable for use in both overhead and vertical repair patch applications. Mortar may either be of the towel-applied type or flowable, pressure-grouted type.

Example products include, but are not limited to, the following:

Mortar Surface Repair Product

- Civil/Structural VO
- Perma PatchTM VO
- Certi-Vex[®] Patch VO
- EucoRepair V100
- SikaRepair[®] 224
- SikaRepair[®] SHB
- SikaTop[®] 123 Plus

- Speccrete® SHB-200AP

- RepCon® V/O

Manufacturer

Dayton Superior Corp. Dayton Superior Corp. Vexcon Chemicals, Inc.

The Euclid ChemicalCompany

Sika Corp. Sika Corp. Sika Corp. SpecChem LLC Specco Industries

The 28-day compressive strength of the repair mortar shall be 4,000 psi minimum.

Submit manufacturer's product data and installation instructions for each material and product used to the engineer. Do not start mortar surface repair work without the engineer's written approval of the product/s proposed for use. Include manufacturer's Material Safety Data Sheets.

C Construction

Supplement standard spec 509.3.7(2) as follows:

Removal of concrete in surface repair areas shall conform to special provision 203.0600.S.

The engineer shall be notified of concrete removal that exceeds 6 inch depth, one fourth the cross section of a structural member, more than half the vertical column reinforcement is exposed in a cross section, more than 6 consecutive reinforcement bars are exposed in any direction within 1.5 inch of a bearing area or other structural concern.

Exposed reinforcement bars shall be cleaned of concrete and corrosion using mechanically powered wire brushes or blast cleaning. After cleaning, all exposed reinforcement shall be carefully evaluated to determine if replacement or additional reinforcement bars are required. Reinforcing bars that have been cut or have lost 25 percent or more of their original cross sectional area shall be supplemented by new in kind reinforcement bars. New bars shall be lapped a minimum of 32 bar diameters to existing bars. A mechanical bar splicer shall be used when it is not feasible to provide the minimum bar lap. No welding of bars shall be performed. Intersecting reinforcement bars shall be tightly secured to each other

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using 0.006 inch or heavier gauge tie wire, and shall be adequately supported to minimize movement during concrete placement or shotcrete application. Additional bar steel is incidental to the bid item for "Mortar Surface Repair."

All repair areas shall be inspected by the engineer prior to placement of mortar.

Repair mortar shall be mixed and installed according to the manufactures written instructions. Prepare all repair surfaces as directed by the manufacture. Place mortar such that all members are restored as close as practicable to their original dimensions. The application of mortar shall be done in a manner that does not result in cold joints, laminations, sandy areas, voids, sags or separations.

Curing of repairs shall be done concurrently with repair mortar application. Curing compound shall be according to standard spec 502.3.8 or as directed by the manufactures written instructions

The contractor shall provide all appropriate access equipment and operators to the engineer to inspect repaired areas. Twenty eight days after placement of repair mortar, the repairs shall be examined for conformance with the original dimensions, cracks, voids and delaminations. Sounding for delaminations shall be done with a hammer or by other methods determined by the engineer.

Repaired areas that are found to not be in conformance with original dimensions, to have surface cracks greater than 0.01 inches in width, map cracking with a crack spacing in any direction of 18 inches or less, voids or delaminations shall be removed and replaced at no additional cost to the department.

D Measurement

The department will measure Mortar Surface Repair according to standard spec 509.4.

E Payment

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

ITEM NUMBERDESCRIPTIONUNITSPV.0165.01Mortar Surface RepairSF

Payment is full compensation for removing and disposing of deteriorated concrete, cleaning reinforcing steel, providing supplemental reinforcing steel (when required), preparing repair surfaces, forming, furnishing, hauling, placing, curing, and protecting all materials.

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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 PROVISION 6 ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

440.3.5.2 Corrective Actions for Localized Roughness

Replace paragraph two with the following effective with the September 2016 letting:

(2) The engineer will not direct corrective action or assess a pay reduction for an area of localized roughness without physically riding that work. The engineer will not direct corrective action on bridges without authorization from the department's bureau of structures.

450.3.1.1.4 Recording Truck Loads

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

- (1) If not using automatic batch recording, install a digital recorder as part of the platform truck or storage silo scales. Ensure that the recorder can produce a printed digital record of at least the gross or net weights of delivery trucks. Provide gross, tare, net weights, load count, and the cumulative tonnage; the date, time, ticket number, WisDOT project ID, and mix 250 number; and the mix type including the traffic, binder, and mix designation codes specified in 460.3.1. Ensure that scales cannot be manually manipulated during the printing process. Provide an interlock to prevent printing until the scales come to rest. Size the scales and recorder to accurately weigh the heaviest loaded trucks or tractor-trailers hauling asphaltic mixture. Ensure that recorded weights are accurate to within 0.1 percent of the nominal capacity of the scale.
- (2) Ensure that tickets identify additives not included in the mix design submittal. Indicate on the ticket if the mixture will be placed under a cold weather paving plan and identify the warm mix additive and dosage rate required under 450.3.2.1.2.2.

455.3.2.1 General

Replace paragraph one with the following effective with the December 2016 letting:

(1) Apply tack coat only when the air temperature is 32 F or more unless the engineer approves otherwise in writing. Before applying tack coat ensure that the surface and reasonably free of loose dirt, dust, or other foreign matter. Do not apply to surfaces with standing water. Do not apply if weather or surface conditions are unfavorable or before impending rains.

460.2.1 General

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

- (1) Furnish a homogeneous mixture of coarse aggregate, fine aggregate, mineral filler if required, SMA stabilizer if required, recycled material if used, warm mix asphalt additive or process if used, and asphaltic material. Design mixtures conforming to table 460-1 and table 460-2 to 4.0% air voids to establish the aggregate structure.
- (2) Determine the target JMF asphalt binder content for production from the mix design data corresponding to 3.0% air voids (97% Gmm) target at the design the number of gyrations (Ndes). Add liquid asphalt to achieve the required air voids at Ndes.
- (3) For SMA, determine the target JMF asphalt binder content for production from the mix design data corresponding to 4.0% air voids (96% Gmm) target at Ndes.

460.2.8.2.1.5 Control Limits

Replace paragraph one with the following effective with the December 2016 letting:

(1) Conform to the following control limits for the JMF and warning limits based on a running average of the last 4 data points:

| ITEM | JMF LIMITS | WARNING LIMITS |
|-------------------------------------|------------|----------------|
| Percent passing given sieve: | | |
| 37.5-mm | +/- 6.0 | +/- 4.5 |
| 25.0-mm | +/- 6.0 | +/- 4.5 |
| 19.0-mm | +/- 5.5 | +/- 4.0 |
| 12.5-mm | +/- 5.5 | +/- 4.0 |
| 9.5-mm | +/- 5.5 | +/- 4.0 |
| 2.36-mm | +/- 5.0 | +/- 4.0 |
| 75-µm | +/- 2.0 | +/- 1.5 |
| Asphaltic content in percent | - 0.3 | - 0.2 |
| Air voids in percent ^[1] | +1.3/-1.0 | +1.0/-0.7 |
| VMA in percent ^[2] | - 0.5 | - 0.2 |

^[1] For SMA, JMF limits are +/-1.3 and warning limits are +/-1.0.

460.2.8.2.1.6 Job Mix Formula Adjustment

Replace paragraph one with the following effective with the December 2016 letting:

(1) The contractor may request adjustment of the JMF according to CMM 8-36.6.13.1. Have an HMA technician certified at a level appropriate for process control and troubleshooting or mix design submit a written JMF adjustment request. Ensure that the resulting JMF is within specified master gradation bands. The department will have a certified Hot Mix Asphalt, Mix Design, Report Submittals technician review the proposed adjustment and, if acceptable, issue a revised JMF.

460.2.8.3.1.6 Acceptable Verification Parameters

Replace paragraph one with the following effective with the December 2016 letting:

- (1) The engineer will provide test results to the contractor within 2 mixture-production days after obtaining the sample. The quality of the product is acceptably verified if it meets the following limits:
 - Va is within a range of 2.0 to 4.3 percent. For SMA, Va is within a range of 2.7 to 5.3 percent.
 - VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.

^[2] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in table 460-1.

460.3.3.1 Minimum Required Density

Replace paragraph one with the following effective with the December 2016 letting:

(1) Compact all layers of HMA mixture to the density table 460-3 shows for the applicable mixture, location, and layer.

TABLE 460-3 MINIMUM REQUIRED DENSITY[1]

| | | PERCENT OF TARGET MAXIMUM DENSITY | | | |
|---------------------------------------|-------|-----------------------------------|---------------------|--------------------|--|
| LOCATION | LAYER | MIXTURE TYPE | | | |
| | | LT and MT | HT | SMA ^[5] | |
| TRAFFIC LANES ^[2] | LOWER | 93.0 ^[3] | 93.0 ^[4] | | |
| TRAFFIC LANES | UPPER | 93.0 | 93.0 | | |
| SIDE ROADS, | LOWER | 93.0 ^{3]} | 93.0 ^[4] | | |
| CROSSOVERS, TURN LANES, & RAMPS | UPPER | 93.0 | 93.0 | | |
| SHOULDERS & APPURTENANCES | LOWER | 91.0 | 91.0 | | |
| | UPPER | 92.0 | 92.0 | | |

^[1] The table values are for average lot density. If any individual density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer may investigate the acceptability of that material.

460.5.2.1 General

Replace paragraph six with the following effective with the December 2016 letting:

(6) If during a QV dispute resolution investigation the department discovers mixture with 1.5 > Va > 5.0 or VMA more than 1.0 below the minimum allowed in table 460-1, and the engineer allows that mixture to remain in place, the department will pay for the quantity of affected material at 50 percent of the contract price.

460.5.2.3 Incentive for HMA Pavement Density

Replace paragraph one with the following effective with the December 2016 letting:

(1) If the lot density is greater than the minimum specified in table 460-3 and all individual air voids test results for that mixture placed during the same day are within 2.5 - 4.0 percent, the department will adjust pay for that lot as follows:

INCENTIVE PAY ADJUSTMENT FOR HMA PAVEMENT DENSITY[1]

PERCENT LOT DENSITY ABOVE SPECIFIED MINIMUM
From -0.4 to 1.0 inclusive
From 1.1 to 1.8 inclusive
More than 1.8

\$0.40
\$0.80

^[2] Includes parking lanes as determined by the engineer.

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

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

^[5] The minimum required densities for SMA mixtures are determined according to CMM 8-15.

^[1] SMA pavements are not eligible for density incentive.

^[2] The department will prorate the pay adjustment for a partial lot.

501.2.6 Fly Ash

Replace the entire subsection with the following effective with the December 2016 letting:

501.2.6.1 General

- (1) Fly ash is defined as a finely divided residue resulting from the combustion of coal in a base loaded electric generating plant, transported from the boiler by flue gases, and later collected, generally by precipitators. Use fly ash in concrete manufactured by facilities and processes known to provide satisfactory material.
- (2) Test fly ash using a recognized laboratory, as defined in 501.2.2(1), starting at least 30 days before its proposed use, and continuing at ASTM-required frequencies as the work progresses. The manufacturer shall test the chemical and physical properties listed in tables 1 and 2 of ASTM C618 at the frequencies and by the test methods prescribed in ASTM C311.
- (3) Use only one source of fly ash for a bid item of work under the contract, unless the engineer directs or allows otherwise in writing.
- (4) Prequalify any proposed fly ash source as follows: The contractor shall obtain a copy of the certified report of tests or analysis made by a qualified independent laboratory, recognized by the department under 501.2.2, showing full and complete compliance with the above specification from the fly ash manufacturer and furnish it to the engineer. Provide this report to the engineer at least 14 calendar days before using the fly ash.
- (5) The manufacturer shall retain test records for at least 5 years after completing the work, and provide these records upon request.

501.2.6.2 Class C Ash

(1) Conform to ASTM C618 class C except limit the loss on ignition to a maximum of 2 percent.

501.2.6.3 Class F Ash

(2) Furnish a class F fly ash from a source listed on the department's approved product list, and conform to ASTM C618 class F except limit the loss on ignition to a maximum of 2 percent.

502.3.7.8 Floors

Replace paragraph sixteen with the following effective with the September 2016 letting:

(16) The finished bridge floor shall conform to the surface test specified in 415.3.10. The engineer will not direct corrective grinding without authorization from the department's bureau of structures.

503.3.2.1.1 Tolerances

<u>Increase the "length of beam" max tolerance for prestressed concrete I-type girders from 3/4" to 1 1/2"</u> effective with the December 2016 letting:

PRESTRESSED CONCRETE I-TYPE GIRDERS

Errata

Make the following corrections to the standard specifications:

Throughout the contract:

Update all references to the construction rental rate "Blue Book" to reference "EquipmentWatch" rates.

105.13.4 Content of Claim

- (1) Include the following 5 items in the claim.
 - 1. A concise description of the claim.
 - 2. A clear contractual basis for the claim. This should include reference to 104.2 on revisions to the contract and as appropriate, specific reference to contract language regarding the bid items in question.
 - 3. Other facts the contractor relies on to support the claim.
 - 4. A concise statement of the circumstances surrounding the claim and reasons why the department should pay the claim. Explain how the claimed work is a change to the contract work.
 - 5. A complete breakdown of the costs used to compile the claim. Include copies of all EquipmentWatch equipment rental rate sheets used, with the applicable number highlighted.

109.4.5.5.1 General

(2) The department will pay for use of contractor-owned equipment the engineer approves for force account work at published rates. The department will pay the contractor expense rates, as modified in 109.4.5.5, given in EquipmentWatch Cost Recovery (formerly Rental Rate Blue Book). Base all rates on revisions effective on January 1 for all equipment used in that calendar year.

http://equipmentwatch.com/estimator/

109.4.5.5.2 Hourly Equipment Expense Rates (Without Operators)

(1) The contractor shall determine, and the department will confirm, hourly equipment expense rates as follows:

 $HEER = [RAF \times ARA \times (R/176)] + HOC$

Where:

HEER = Hourly equipment expense rate.

RAF = EquipmentWatch regional adjustment factor.

ARA = EquipmentWatch age rate adjustment factor.

R = Current EquipmentWatch monthly rate.

HOC = EquipmentWatch estimated hourly operating cost.

(2) The EquipmentWatch hourly operating cost represents all costs of equipment operation, including fuel and oil, lubrication, field repairs, tires, expendable parts, and supplies.

109.4.5.5.3 Hourly Equipment Stand-By Rate

(1) For equipment that is in operational condition and is standing-by with the engineer's approval, the contractor shall determine, and the department will confirm, the hourly stand-by rate as follows:

 $HSBR = RAF \times ARA \times (R/176) \times (1/2)$

Where:

HSBR = Hourly stand-by rate.

RAF = EquipmentWatch regional adjustment factor.

ARA = EquipmentWatch age rate adjustment factor.

R = Current EquipmentWatch monthly rate.

(2) The department will limit payment for stand-by to 10 hours or less per day up to 40 hours per week. The department will not pay the contractor for equipment that is inoperable due to breakdown. The department will not pay for idle equipment if the contractor suspends work or if the contractor is maintaining or repairing the equipment.

109.4.5.5.4 Hourly Outside-Rented Equipment Rate

(1) If the contractor rents or leases equipment from a third party for force account work, the contractor shall determine, and the department will confirm, the hourly outside-rented equipment rate as follows:

HORER = HRI + HOC

Where:

HORER = Hourly outside-rented equipment rate

HRI = Hourly rental invoice costs prorated for the actual number of hours

that rented equipment is operated solely on force account work

HOC = EquipmentWatch hourly operating cost.

109.2 Scope of Payment

Correct errata to clarify that work under the contract is included in payment unless specifically excluded.

- (2) The department will pay for the quantity of work acceptably completed and measured for payment as the measurement subsection for each bid item specifies. Within the contract provide means to furnish and install the work complete and in-place. Payment is full compensation for everything required to perform the work under the contract including, but not limited to, the work elements listed in the payment subsection. Payment also includes all of the following not specifically excluded in that payment subsection:
 - 1. Furnishing and installing all materials as well as furnishing the labor, tools, supplies, equipment, and incidentals necessary to perform the work.
 - 2. All losses or damages, except as specified in 107.14, arising from one or more of the following:
 - The nature of the work.
 - The action of the elements.
 - Unforeseen difficulties encountered during prosecution of the work.
 - 3. All insurance costs, expenses, and risks connected with the prosecution of the work.
 - 4. All expenses incurred because of an engineer-ordered suspension, except as specified in 104.2.2.3.
 - 5. All infringements of patents, trademarks, or copyrights.
 - 6. All other expenses incurred to complete and protect the work under the contract.

204.3.2.2.1 General

Correct errata by removing the reference to 490 which was deleted effective with the 2017 spec.

(1) Under the Removing Pavement bid item, remove concrete pavements, concrete alleys, concrete driveways, or rigid base including all surfaces or other pavements superimposed on them.

657.2.2.1.1 General

Correct errata by eliminating the reference to department provided arms in the last sentence.

(1) Furnish shop drawings as specified in 506.3.2, except submit 5 copies with the materials list. Ensure the drawings contain sufficient detail to allow satisfactory review and show the outside diameters of the pole at the butt, top, and splice locations the plans show. Show the width, depth, length, and thickness of all material, and list pertinent ASTM specification designations and metal alloy designations together with the tensile strength of metallic members. Provide tightening procedures for arm-to-pole connections on the shop drawings.

657.2.2.1.4 Poles Designed Under Legacy Standards

Correct errata by deleting the entire subsection to eliminate redundant language.

657.2.2.2 Trombone Arms

Correct errata by changing the reference from 657.2.2.1.3 to 657.2.2.1.2.

(1) Design aluminum trombone arms as specified in 657.2.2.1.2 based on the completed maximum loading configuration the plans show. Furnish shop drawings conforming to 657.2.2.1.1 that show the width, depth, length, and thickness of all members. Also list the ASTM alloy designation and strength of each aluminum member on the shop drawings.

ADDITIONAL SPECIAL PROVISION 7

- A. Reporting 1st Tier and DBE Payments During Construction
 - 1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
 - 2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
 - 3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
 - 4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
 - 5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
 - 6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.
- B. Costs for conforming to this special provision are incidental to the contract.

ADDITIONAL SPECIAL PROVISION 9 Electronic Certified Payroll Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to submit certified payrolls electronically. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

- (2) Ensure that all tiers of subcontractors, as well as all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.
- (3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact 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

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Non-discrimination Provisions

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

- **1. Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
- **2. Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
- **3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
- **4. Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
- **5. Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - a. Withholding payments to the contractor under the contract until the contractor complies; and/or
 - b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

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

1 of 1

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 contacts.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this in 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 **WAUKESHA 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.

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.

| TRADE OR OCCUPATION | HOURLY BASIC RATE OF PAY | HOURLY FRINGE BENEFITS | TOTAL |
|--|--|---------------------------------------|--------|
| | \$ | \$ | \$ |
| Bricklayer, Blocklayer or Stonemason | 31.55 | 18.52 | 50.07 |
| Carpenter | 34.13 | 20.79 | 54.92 |
| Cement Finisher Future Increase(s): Add \$1.75 on 6/1/16. | 33.95 | 19.88 | 53.83 |
| Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic ra Day, Independence Day, Labor Day, Thanksgiving Day & Christmas I Department of Transportation or responsible governing agency requir artificial illumination with traffic control and the work is completed after | Day. 2) Add \$1.40/les that work be pe | hr when the Wisc erformed at night | consin |
| Electrician Future Increase(s): Add \$1.60 on 6/1/16; Add \$1.70 on 6/1/17 Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate o Independence Day, Labor Day, Thanksgiving Day & Christmas Day. | 35.13 n Sunday, New Ye | 23.19 ar's Day, Memor | 58.32 |
| Fence Erector | 35.62 | 0.00 | 35.62 |
| Ironworker | 30.77 | 23.72 | 54.49 |
| Line Constructor (Electrical) | 46.10 | 18.69 | 64.79 |
| Painter | 29.87 | 18.79 | 48.66 |
| Pavement Marking Operator | 31.24 | 17.83 | 49.07 |
| Piledriver | 30.11 | 21.09 | 51.20 |
| Roofer or Waterproofer | 30.40 | 2.23 | 32.63 |
| Teledata Technician or Installer | 25.63 | 17.25 | 42.88 |
| Tuckpointer, Caulker or Cleaner | 34.28 | 18.60 | 52.88 |
| Underwater Diver (Except on Great Lakes) | 36.74 | 16.00 | 52.74 |
| Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONI | LY 36.73 | 15.92 | 52.65 |
| Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY | 32.65 | 16.00 | 48.65 |

42.28

28.57

13.71

Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY

WAUKESHA COUNTY Page 2

| TRADE OR OCCUPATION | HOURLY BASIC RATE OF PAY | HOURLY FRINGE BENEFITS \$ | TOTAL |
|--|---|---|--|
| Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY | Ψ 26.53 | Ψ 13.09 | 39.62 |
| Groundman - ELECTRICAL LINE CONSTRUCTION ONLY | 22.45 | 12.24 | 34.69 |
| dioditation Electrical Line Concentration Cher | <i>LL</i> .+0 | | |
| TRUCK DRIVERS | | | |
| Single Axle or Two Axle | 36.72 | 21.15 | 57.87 |
| Three or More Axle | 29.18 | 14.41 | 43.59 |
| Articulated, Euclid, Dumptor, 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 6/1/20 | | Voorlo Dov. Ma | اماسممس |
| Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic random pay, Independence Day, Labor Day, Thanksgiving Day & Christmas See DOT'S website for details about the applicability of this night work http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/pressure. | Day. 2) Add \$1.50/l rk premium at: evailing- wage- com | nr night work pre | mium. |
| Pavement Marking Vehicle | 23.82 | 17.72 | 41.54 |
| Shadow or Pilot Vehicle | | 14.41 | 43.59 |
| Truck Mechanic | 29.18 | 14.41 | 43.59 |
| LABORERS | | | |
| General Laborer | 27.51 | 20.63 | 48.14 |
| Premium Pay: Add \$.15/hr for air tool operator, joint sawer and filler (mechanical hand operated), chain saw operator and demolition burn bituminous worker (raker and luteman), formsetter (curb, sidewalk ar \$.50/hr for line and grade specialist; Add \$.65/hr for blaster and powe \$2.46/hr for bottomman; Add \$3.23/hr for pipelayer. / DOT PREMIUN on Sunday, New Year's Day, Memorial Day, Independence Day, Labo 2) Add \$1.25/hr for work on projects involving temporary traffic controwhen work under artificial illumination conditions is necessary as required prior to and/or cleanup after such time period). | ning torch laborer; And pavement) and s derman; Add \$2.01 (IS: 1) Pay two time or Day, Thanksgivin ol setup, for lane ar | Add \$.35/hr for strike off man; Add har for topman; A sthe hourly bas ag Day & Christmand shoulder closi | dd dd ic rate nas Day. ures, |
| Asbestos Abatement Worker | 19.00 | 0.00 | 19.00 |
| Landscaper | 27.51 | 20.63 | 48.14 |
| Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff | ate on Sunday, Nev Day. 2) Add \$1.25/l res, when work und ng prep time prior t | nr for work on pr Ier artificial illum | ojects ination |
| Flagperson or Traffic Control Person | 23.55 | 20.03 | 43.58 |
| Fiber Optic Laborer (Outside, Other Than Concrete Encased) | 18.53 | 0.00 | 18.53 |
| Railroad Track Laborer | 17.00 | 3.88 | 20.88 |
| HEAVY EQUIPMENT OPERATORS | | | |
| Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower Derrick, With or Without Attachments, With a Lifting Capacity of Over 10 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Leads of the Company of t | er or 00 | 21.85 | 60.12 |

WAUKESHA COUNTY Page 3

TRADE OR OCCUPATION

HOURLY **BASIC RATE** OF PAY

37.77

37.27

HOURLY FRINGE BENEFITS

21.85

21.85

TOTAL

59.62

59.12

Crane With Boom Dollies; Traveling Crane (Bridge Type).

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://wisconsindot.gov/Pages/doing- bus/civil- rights/labornwage/prevailing- wage- compliance. aspx.

Backhoe (Track Type) Having a Mfgr.'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.

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://wisconsindot.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 Mfgr.'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 vds 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 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:

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

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

37.01

21.85

58.86

WAUKESHA COUNTY Page 4

TRADE OR OCCUPATION TRADE OR OCCUPATION BASIC RATE FRINGE OF PAY BENEFITS TOTAL \$ \$

Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawer (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:

36.72

21.85

58.57

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

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.

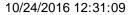
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium.

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

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

Fiber Optic Cable Equipment. 22.00 5.66 27.66







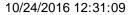
Proposal Schedule of Items

Page 1 of 10

SECTION: 0001 Roadway Items

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------------|--|--------------------------------------|-------------------|------------|
| 0010 | 203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 01. 120+50 | LS | LUMP SUM | |
| 0020 | 204.0110 Removing Asphaltic Surface | 469.000 SY | · | |
| 0030 | 204.0115 Removing Asphaltic Surface Butt Joints | 320.000 SY | · | · |
| 0040 | 204.0120 Removing Asphaltic Surface Milling | 59,710.000 SY | <u> </u> | <u> </u> |
| 0050 | 204.0150 Removing Curb & Gutter | 55.000 LF | | |
| 0060 | 204.0165 Removing Guardrail | 560.000 LF | <u> </u> | <u> </u> |
| 0070 | 204.0190 Removing Surface Drains | 1.000 EACH | <u> </u> | <u> </u> |
| 0080 | 204.0195 Removing Concrete Bases | 4.000 EACH | | |
| 0090 | 211.0100 Prepare Foundation for Asphaltic Paving (project) 01 3100-06-60 | LS | LUMP SUM | |
| 0100 | 211.0400 Prepare Foundation for Asphaltic Shoulders | 236.000 STA | | |
| 0110 | 213.0100 Finishing Roadway (project) 01 3100-06- 60 | 1.000 EACH | | |
| 0120 | 305.0110 Base Aggregate Dense 3/4-Inch | 2,356.000 TON | · | |
| 0130 | 305.0500 Shaping Shoulders | 76.000 STA | · | · |
| 0140 | 390.0201 Base Patching Asphaltic | 71.000 TON | | |
| 0150 | 440.4410 Incentive IRI Ride | 10,730.000 DOL | . <u>1.000</u> 00 | 10,730.00 |
| 0160 | 455.0605 Tack Coat | 4,765.000 GAL | | · |







Proposal Schedule of Items

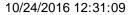
Page 2 of 10

Proposal ID: 20161213013 Project(s): 3100-06-60

SECTION: 0001 Roadway Items

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------------|---|--------------------------------------|------------|------------|
| 0170 | 460.2000 Incentive Density HMA Pavement | 6,160.000 DOL | .1.00000 | 6,160.00 |
| 0180 | 460.5224 HMA Pavement 4 LT 58-28 S | 9,620.000 TON | | |
| 0190 | 465.0110 Asphaltic Surface Patching | 20.000 TON | · | |
| 0200 | 465.0120 Asphaltic Surface Driveways and Field Entrances | 110.000 TON | | |
| 0210 | 465.0125 Asphaltic Surface Temporary | 35.000 TON | | |
| 0220 | 465.0315 Asphaltic Flumes | 9.000 SY | | |
| 0230 | 465.0425 Asphaltic Shoulder Rumble Strips 2-Lane Rural | 20,400.000 LF | | |
| 0240 | 465.0475 Asphalt Center Line Rumble Strips 2- Lane Rural | 11,225.000 LF | | |
| 0250 | 502.0100 Concrete Masonry Bridges | 10.000 CY | | |
| 0260 | 502.4205 Adhesive Anchors No. 5 Bar | 100.000 EACH | | |
| 0270 | 505.0600 Bar Steel Reinforcement HS Coated Structures | 1,100.000 LB | | |
| 0280 | 509.0301 Preparation Decks Type 1 | 6.000 SY | · | |
| 0290 | 509.0302 Preparation Decks Type 2 | 2.000 SY | · | |
| 0300 | 509.3500.S HMA Overlay Polymer-Modified | 22.000 TON | · | |
| 0310 | 509.9010.S Removing Asphaltic Concrete Deck Overlay (structure) 01. B-67-0010 | 126.000 SY | | |
| 0320 | 514.2625 Downspout 6-Inch | 70.000 LF | | |







Proposal Schedule of Items

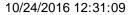
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Proposal ID: 20161213013 Project(s): 3100-06-60

SECTION: 0001 Roadway Items

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------------|--|--------------------------------------|------------|------------|
| 0330 | 601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D | 30.000 LF | | · |
| 0340 | 603.8000 Concrete Barrier Temporary Precast Delivered | 675.000 LF | <u></u> | · |
| 0350 | 603.8125 Concrete Barrier Temporary Precast Installed | 1,350.000 LF | <u></u> | |
| 0360 | 614.0010 Barrier System Grading Shaping Finishing | 4.000 EACH | · | |
| 0370 | 614.0150 Anchor Assemblies for Steel Plate Beam Guard | 4.000 EACH | | |
| 0380 | 614.0200 Steel Thrie Beam Structure Approach | 21.000 LF | | |
| 0390 | 614.0305 Steel Plate Beam Guard Class A | 13.000 LF | | |
| 0400 | 614.0370 Steel Plate Beam Guard Energy Absorbing Terminal | 1.000 EACH | | |
| 0410 | 614.0396 Guardrail Mow Strip Asphalt | 275.000 SY | | |
| 0420 | 614.2300 MGS Guardrail 3 | 263.000 LF | | |
| 0430 | 614.2500 MGS Thrie Beam Transition | 120.000 LF | | |
| 0440 | 614.2610 MGS Guardrail Terminal EAT | 3.000 EACH | | |
| 0450 | 619.1000 Mobilization | 1.000 EACH | | |
| 0460 | 625.0100 Topsoil | 450.000 SY | | |
| 0470 | 627.0200 Mulching | 110.000 SY | | |





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Proposal Schedule of Items

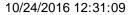
Project(s): 3100-06-60

Proposal ID: 20161213013

SECTION: 0001 Roadway Items

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------------|---|--------------------------------------|------------|------------|
| 0480 | 628.1504 Silt Fence | 3,580.000 LF | | |
| 0490 | 628.1520 Silt Fence Maintenance | 3,580.000 LF | | |
| 0500 | 628.1905 Mobilizations Erosion Control | 8.000 EACH | | · |
| 0510 | 628.1910 Mobilizations Emergency Erosion Control | 2.000 EACH | · | · |
| 0520 | 628.2008 Erosion Mat Urban Class I Type B | 450.000 SY | | |
| 0530 | 628.7010 Inlet Protection Type B | 4.000 EACH | | |
| 0540 | 628.7015 Inlet Protection Type C | 8.000 EACH | | · |
| 0550 | 628.7504 Temporary Ditch Checks | 36.000 LF | · | · |
| 0560 | 628.7570 Rock Bags | 20.000 EACH | | |
| 0570 | 629.0210 Fertilizer Type B | 0.400 CWT | | |
| 0580 | 630.0130 Seeding Mixture No. 30 | 10.000 LB | | |
| 0590 | 630.0160 Seeding Mixture No. 60 | 1.000 LB | | |
| 0600 | 630.0200 Seeding Temporary | 9.000 LB | | |
| 0610 | 634.0618 Posts Wood 4x6-Inch X 18-FT | 183.000 EACH | | |
| 0620 | 634.0620 Posts Wood 4x6-Inch X 20-FT | 2.000 EACH | <u></u> | |
| 0630 | 637.2210 Signs Type II Reflective H | 1,740.370 SF | | |
| 0640 | 637.2215 Signs Type II Reflective H Folding | 96.980 SF | | |





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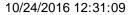
Proposal Schedule of Items

Proposal ID: 20161213013 Project(s): 3100-06-60

SECTION: 0001 Roadway Items

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------------|--|--------------------------------------|------------|------------|
| 0650 | 637.2230 Signs Type II Reflective F | 221.750 SF | | |
| 0660 | 638.2102 Moving Signs Type II | 4.000 EACH | | |
| 0670 | 638.2602 Removing Signs Type II | 155.000 EACH | | |
| 0680 | 638.3000 Removing Small Sign Supports | 159.000 EACH | | |
| 0690 | 642.5201 Field Office Type C | 1.000 EACH | · | |
| 0700 | 643.0100 Traffic Control (project) 01 3100-06-60 | 1.000 EACH | | |
| 0710 | 643.0300 Traffic Control Drums | 881.000 DAY | | |
| 0720 | 643.0420 Traffic Control Barricades Type III | 99.000 DAY | | |
| 0730 | 643.0705 Traffic Control Warning Lights Type A | 132.000 DAY | | |
| 0740 | 643.0715 Traffic Control Warning Lights Type C | 220.000 DAY | | |
| 0750 | 643.0900 Traffic Control Signs | 1,344.000 DAY | | |
| 0760 | 643.1050 Traffic Control Signs PCMS | 26.000 DAY | | |
| 0770 | 646.0106 Pavement Marking Epoxy 4-Inch | 56,915.000 LF | | |
| 0780 | 646.0600 Removing Pavement Markings | 1,600.000 LF | | |
| 0790 | 646.0841.S Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch | 430.000 LF | | <u> </u> |
| 0800 | 646.0843.S Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch | 5,715.000 LF | | |





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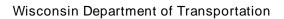


Proposal Schedule of Items

Proposal ID: 20161213013 Project(s): 3100-06-60

SECTION: 0001 Roadway Items

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------------|--|--------------------------------------|------------|------------|
| 0810 | 646.0881.S Pavement Marking Grooved Wet Reflective Tape 4-Inch | 878.000 LF | | |
| 0820 | 646.0883.S Pavement Marking Grooved Wet Reflective Tape 8-Inch | 275.000 LF | | |
| 0830 | 647.0166 Pavement Marking Arrows Epoxy Type 2 | 29.000 EACH | | |
| 0840 | 647.0356 Pavement Marking Words Epoxy | 24.000 EACH | | |
| 0850 | 647.0456 Pavement Marking Curb Epoxy | 140.000 LF | | |
| 0860 | 647.0566 Pavement Marking Stop Line Epoxy 18-Inch | 452.000 LF | | |
| 0870 | 647.0606 Pavement Marking Island Nose Epoxy | 7.000 EACH | | |
| 0880 | 647.0726 Pavement Marking Diagonal Epoxy 12-Inch | 1,400.000 LF | · | · |
| 0890 | 647.0856 Pavement Marking Concrete Corrugated Median Epoxy | 230.000 SF | · | |
| 0900 | 648.0100 Locating No-Passing Zones | 2.580 MI | | |
| 0910 | 649.0400 Temporary Pavement Marking Removable Tape 4-Inch | 6,742.000 LF | · | · |
| 0920 | 649.0403 Temporary Pavement Marking Epoxy 4-Inch | 14,680.000 LF | | · |
| 0930 | 649.0801 Temporary Pavement Marking Removable Tape 8-Inch | 875.000 LF | | |
| 0940 | 649.1400 Temporary Pavement Marking Stop Line Removable Tape 24-Inch | 24.000 LF | | |





Proposal Schedule of Items

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Proposal ID: 20161213013 Project(s): 3100-06-60

SECTION: 0001 Roadway Items

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------------|--|--------------------------------------|------------|------------|
| 0950 | 650.5500 Construction Staking Curb Gutter and Curb & Gutter | 30.000 LF | | |
| 0960 | 650.8000 Construction Staking Resurfacing Reference | 14,165.000 LF | | |
| 0970 | 650.8500 Construction Staking Electrical Installations (project) 01 3100-06-60 | LS | LUMP SUM | |
| 0980 | 650.9910 Construction Staking Supplemental Control (project) 01 3100-06-60 | LS | LUMP SUM | |
| 0990 | 652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch | 68.000 LF | · | |
| 1000 | 654.0113 Concrete Bases Type 13 | 4.000 EACH | | |
| 1010 | 655.0230 Cable Traffic Signal 5-14 AWG | 373.000 LF | | |
| 1020 | 655.0240 Cable Traffic Signal 7-14 AWG | 359.000 LF | | |
| 1030 | 655.0260 Cable Traffic Signal 12-14 AWG | 895.000 LF | · | |
| 1040 | 655.0305 Cable Type UF 2-12 AWG Grounded | 757.000 LF | | · |
| 1050 | 655.0515 Electrical Wire Traffic Signals 10 AWG | 2,160.000 LF | <u></u> | · |
| 1060 | 655.0610 Electrical Wire Lighting 12 AWG | 576.000 LF | · | · |
| 1070 | 655.0900 Traffic Signal EVP Detector Cable | 1,190.000 LF | | |
| 1080 | 657.0100 Pedestal Bases | 4.000 EACH | · | |
| 1090 | 657.0425 Traffic Signal Standards Aluminum 15- FT | 4.000 EACH | · | · |





Proposal Schedule of Items

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Proposal ID: 20161213013 Project(s): 3100-06-60

SECTION: 0001 Roadway Items

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------------|--|--------------------------------------|------------|------------|
| 1100 | 657.1360 Install Poles Type 13 | 4.000 EACH | | |
| 1110 | 657.1540 Install Monotube Arms 40-FT | 1.000 EACH | | |
| 1120 | 657.1545 Install Monotube Arms 45-FT | 3.000 EACH | | |
| 1130 | 657.1815 Install Luminaire Arms Steel 15-FT | 4.000 EACH | • | |
| 1140 | 658.0110 Traffic Signal Face 3-12 Inch Vertical | 12.000 EACH | | |
| 1150 | 658.0115 Traffic Signal Face 4-12 Inch Vertical | 8.000 EACH | | |
| 1160 | 658.0215 Backplates Signal Face 3 Section 12-Inch | 12.000 EACH | | |
| 1170 | 658.0220 Backplates Signal Face 4 Section 12- Inch | 8.000 EACH | | · |
| 1180 | 658.0600 Led Modules 12-Inch Red Ball | 12.000 EACH | · | |
| 1190 | 658.0605 Led Modules 12-Inch Yellow Ball | 12.000 EACH | | |
| 1200 | 658.0610 Led Modules 12-Inch Green Ball | 12.000 EACH | | |
| 1210 | 658.0615 Led Modules 12-Inch Red Arrow | 8.000 EACH | | |
| 1220 | 658.0620 Led Modules 12-Inch Yellow Arrow | 16.000 EACH | | |
| 1230 | 658.0625 Led Modules 12-Inch Green Arrow | 8.000 EACH | | |
| 1240 | 658.5069 Signal Mounting Hardware (location) 01. USH 18 & STH 67 | LS | LUMP SUM | · |
| 1250 | 659.1125 Luminaires Utility LED C | 4.000 EACH | · | · |





Proposal Schedule of Items

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Proposal ID: 20161213013 Project(s): 3100-06-60

SECTION: 0001 Roadway Items

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------------|--|--------------------------------------|------------|------------|
| 1260 | 661.0100 Temporary Traffic Signals for Bridges (structure) 01. B-67-0010 | LS | LUMP SUM | · |
| 1270 | 690.0150 Sawing Asphalt | 965.000 LF | | |
| 1280 | SPV.0035 Special 01. CONCRETE MASONRY DECK PATCHING | 1.000 CY | | |
| 1290 | SPV.0060 Special 02. Section Corner Monuments Special | 5.000 EACH | | |
| 1300 | SPV.0090 Special 01. Joint and Crack Repair | 5,925.000 LF | | |
| 1310 | SPV.0090 Special 02. Pavement Marking Grooved Preformed Plastic Tape 8-Inch | 1,575.000 LF | | |
| 1320 | SPV.0090 Special 03. SAWING PAVEMENT DECK PREPARATION AREAS | 30.000 LF | · | |
| 1330 | SPV.0090 Special 04. Pavement Marking Grooved Preformed Plastic Tape 4-Inch | 4,772.000 LF | | · |
| 1340 | SPV.0090 Special 05. Pavement Marking Contrast Grooved Preformed Plastic Tape 4-Inch | 85.000 LF | | |
| 1350 | SPV.0105 Special 01. TRANSPORT TRAFFIC SIGNAL & LIGHTING MATERIALS, USH 18 & STH 67 | LS | LUMP SUM | |
| 1360 | SPV.0105 Special 02. REMOVE TRAFFIC SIGNALS, USH 18 & STH 67 | LS | LUMP SUM | |
| 1370 | SPV.0105 Special 03. EVP DETECTOR HEAD INSTALLATION, USH 18 & STH 67 | LS | LUMP SUM | · |
| 1380 | SPV.0105 Special 04. TRANSPORT AND INSTALL STATE FURN RAD AR DETECTION SYS, USH 18 & STH 67 | LS | LUMP SUM | · |
| | | | | |





Proposal Schedule of Items

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Proposal ID: 20161213013 Project(s): 3100-06-60

SECTION: 0001 Roadway Items

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------------|---|--------------------------------------|------------|------------|
| 1390 | SPV.0105 Special 05. INSTALL STATE FURN SIGNAL CABINET, USH 18 & STH 67 | LS | LUMP SUM | <u></u> |
| 1400 | SPV.0105 Special 06. Temporary Portable Rumble Strip Array | LS | LUMP SUM | |
| 1410 | SPV.0165 Special 01. MORTAR SURFACE REPAIR | 100.000 SF | | |
| | Section: 000 | 01 | Total: | · |
| | | | Total Bid: | |

PLEASE ATTACH SCHEDULE OF ITEMS HERE