HIGHWAY WORK PROPOSAL

Proposal Number: 1 4

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

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Racine	1320-19-60		Durand Avenue Village of Sturtevant and Mount Pleasant 92nd Street to 1500' West of STH 31	STH 11

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	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: May 10, 2016 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time Seventy (70) Working Days	
Assigned Disadvantaged Business Enterprise Goal 0 %	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

(Bidder Signature)

(Print or Type Bidder Name)

(Bidder Title)

For Department Use Only

Type of Work Base aggregate dense, HMA pavement, pavement marking, permanent signing, traffic signals, lighting, and crash cushion.	
Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

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

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

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

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

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

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

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

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

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

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

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

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

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

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

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

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

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

Bidder

Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

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

C Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1320-19-60, Durand Avenue Village of Sturtevant and Mount Pleasant, 92nd street to 1500' west of STH 31, STH 11, Racine County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2016 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.
100-005 (20151210)

2. Scope of Work.

The work under this contract shall consist of milling asphaltic surface, HMA pavement, base patching, concrete sidewalk, HMA overlay, traffic signals, lighting, permanent signing, pavement marking, erosion control and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

3. Prosecution and Progress.

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

Provide the time frame for construction of the project within the 2016 construction season to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Assure that the time frame is consistent with the contract completion time. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the beginning of the approved time frame.

To revise the time frame, submit a written request to the engineer at least two weeks before the beginning of the intended time frame. 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.

Work Restrictions
Park equipment and store material only at work sites approved by the engineer.

Maintain access to all side roads, and commercial and private properties at all times during the duration of this contract with the exception during construction of driveways. Notify the

property occupants five days in advance of driveway reconstruction to verify staged driveway construction methods. Submit all traffic control change requests to the engineer at least 48 hours prior to an actual traffic control change. A request does not constitute approval.

4. Traffic.

The schedule of operations shall conform to the construction staging as described in the plan unless the engineer approves, in writing, modifications to the plan. Submit all traffic control stage modification requests to the engineer at least 7 days prior to an actual traffic control stage change. A request does not constitute approval. Substantially complete all work within a given stage prior to commencing work on the following stage.

Maintain one lane of travel in either direction at all times on STH11.

Any work resulting in a traffic lane width 10 feet or less or if no left turn lane can be provided at 90th Street, 86th Street, or Oakes Rd, shall be done during night hours.

Conduct traffic control stage changes only during non-peak traffic periods.

Non-peak traffic periods are defined as Monday, Tuesday, Wednesday, Thursday and Friday between 9:00 AM and 3:00 PM, and between 7:00 PM Monday, Tuesday, Wednesday, Thursday and Friday, and 6:00 AM the following day. Nighttime hours are defined as between 7:00 PM Monday, Tuesday, Wednesday, Thursday and Friday and 6:00 AM the following day.

During concrete base patching operations, backfill by the end of each workday all open trenches adjacent to traffic. Plate all open trenches that are not fully backfilled. Ramp transverse drop-offs at intersections greater than one-inch.

Stage 1
Stage 1 consists of all work from Station 243+00 to Station 343+00. Stage 1 will construct the eastbound and westbound inside lanes. Traffic will utilize the eastbound and westbound outside lanes.

Stage 2
Stage 2 consists of all work from Station 243+00 to Station 343+00. Stage 2 will construct the eastbound and westbound outside lanes. Traffic will utilize the eastbound and westbound inside lanes.

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	14 calendar days
Full roadway closures	14 calendar days
System and service ramp closures	14 calendar days
Full system and service ramp closures	14 calendar days
Detours	14 calendar days
Closure type without height, weight, or width restrictions (available width, all lanes in one direction >16')	MINIMUM NOTIFICATION
Lane and shoulder closures	3 business days
System and service ramp closures	3 business days
Modifying all closure types	3 business days

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date.
108-057 (20150630)

5. Traffic Control for 90th Street, 87th Street, 86th Street, 84th Street, Willow Road and Oakes Road intersections.

Maintain one lane of travel in either direction at all times on STH 11.

Maintain existing left turn lanes at 84th Street and Oakes Road using Detail C of Standard Detail Drawing titled "Traffic Control, Intersection within Single Lane Closure."

Provide 100' left turns lanes at 90th Street, 87th Street, 86th Street and Willow Road per Detail A of Standard Detail Drawing titled "Traffic Control, Intersection within Single Lane Closure."

Any work operations that result in lane widths of less than 10' or prohibit left turning traffic shall be done at night. Night work operations at night shall provide the following traffic control measures:

- A flagger shall be provided for each approach to coordinate traffic.
- If signalized, the signal shall be turned off during the time work flaggers are being used. Coordinate with WisDOT signals to determine appropriate times for the signal to be turned off. Signal turn off shall be done by a journey worker electrician or an electrical apprentice under the onsite supervision of a journey worker electrician.

6. Referenced Construction Specifications.

Construct the work enumerated below conforming to the Village of Mount Pleasant Standards. If there is a discrepancy or conflict between the referenced specification and the standard specifications regarding contract administration, part 1 of the standard specifications governs.

Conform to the referenced construction specifications for the following:

All of Category 0040 work, including:

- Item 611.0420 - Reconstructing Manholes
- Item 611.8110 - Adjusting Manhole Covers

105-002 (20130615)

7. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 11 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From noon Friday, May 27, 2016 to 6:00 AM Tuesday, May 31, 2016 for Memorial Day;
- From noon Friday, July 1, 2016 to 6:00 AM Tuesday, July 5, 2016 for Independence Day;
- From noon Friday, September 2, 2016 to 6:00 AM Tuesday, September 6, 2016 for Labor Day;
- From noon Wednesday, November 23, 2016 to 6:00 AM Monday November 28, 2016 for Thanksgiving;
- From noon Friday May 26, 2017 to 6:00 AM Tuesday, May 30, 2017 for Memorial Day.

107-005 (20050502)

8. Utilities.

The provisions of administrative rule TRANS 220 apply to this project.

Underground and overhead utility facilities are located within the project limits. Utility adjustments are required for this construction project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to insure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

Contact each utility company listed in the plans, prior to preparing bids, to obtain current information on the status of existing and any new utility relocation work.
107-SER2 (20101021)

The following utilities have facilities within the construction limits:

- AT&T Wisconsin has 1 manhole in the sidewalk at the northwest corner of intersection of STH 11/Durand Ave. and 90th St. AT&T Wisconsin will adjust the frame and cover during construction after final elevations have been determined. Contact AT&T Wisconsin 10 days in advance. AT&T Wisconsin takes five days to complete their work.

  Contact for AT&T Wisconsin is Mark Eder at (262) 896-7434 or me1754@att.com

- Racine Water Works will be relaying waterman between 90th street and 86th street prior to construction. They will shift hydrant south and remove bollards at 86th street. Service box at 87th street will be adjust at time of concrete paving. Racine water works need one day advance notice and will adjust service box in an hour.

  Contact for Racine Water Works is Chad Regalia at (262) 497-4611 or chad.regalia@cityofracine.com

- TDS Metrocom existing manhole at the southwest corner of 90th Street and STH 11 is identified as being in a sidewalk slab that is to be replaced. The manhole frame and cover will be adjusted to the new sidewalk grade prior to pouring the new concrete slab if that is necessary. Contractor should coordinate with TDS Metrocom and give a five working day advance notice.

  Contact for TDS Metrocom is Michael Johnson at (262) 754-3052 or michael.johnson@tdstelecom.com

- Village of Mt. Pleasant has Sanitary Sewer manholes which needs to be altered. This work includes casting replacement, adjusting ring and chimney reconstruction. Village of Mt. Pleasant Sanitary Sewer work is included in this contract. The contractor to follow city's specs while performing Mt. Pleasant Sanitary Sewer work. These specifications can be found in article 16 of the special provisions.

  Contact for Village of Mt. Pleasant is Robert Schroeder at (262) 664-7847 or rschroeder@mtpleasant.wi.gov

- WisDOT Signals has existing underground and overhead signal facilities within the project limits. Remove, adjust, reconstruct and discontinue in its place the signal facilities as shown in the plans.

  Contact for WisDOT Signals is WisDOT SE Region Signals at (414) 750-2605.

The following utilities have facilities within the construction limits, however, no adjustments are anticipated:

- ATC Management Inc.
  Contact for ATC Management Inc. is Tony Marciniak at (262) 506-6814 or tmarciniak@atcllc.com

- ATT Corporation
  Contact for ATT Corporation is William Koenig at (608) 628-0575 or bkoeing@jmceainc.com

- ATT Local Network
  Contact for ATT Local Network is Debbie saddler at (414) 459-3572 or d.saddler@northwindtech.com

- Level 3 Communication
  Contact for Level 3 Communication is Masood Zeerak at (720) 888-8568 or masood.zeerak@level3.com

- Mt Pleasant Storm
  Contact for Mt Pleasant Storm is Robert Schroeder at (262) 664-7847 or rschroeder@mtpleasant.wi.gov

- Midwest Fiber Networks
  Contact for MWF Networks is Richard Trgovec at (414) 672-5612 or rtrgovec@midwestfibernetworks.com

- Paetec
  Contact for Paetec is Tim Kostuch at 262-792-7938 or james.kostuch@windstream.com

- Sprint
  Contact for Sprint is Jim Burton at 708-955-6659 or james.m.burton@sprint.com

- Time Warner Cable
  Contact for Time warner Cable is Steve Cramer at (414) 277-4045 or steve.cramer@twcable.com

- Village of Sturtevant
  Contact for Village of Sturtevant is Jeffrey Seitz at 262-886-7202 or seitzj@sturtevant-wi.gov

- We Energies - Electric
  Contact for WE - Electric is Francisco Chavez at (414) 944-5540 or francisco.chavez@we-energies.com

- We Energies - Gas - 8" steel gas main at approximate station 262+20 goes from approximately 12' to 7' north of the south right of way. This gas main is very close to the proposed 30" diameter sign pole base, use caution.
  Contact for WE - Gas is Chris DeGrave at (262) 886-7018 or chris.degrave@we-energies.com

- Windstream NTI
  Contact for Windstream NTI is Tim Kostuch at (262) 792-7938 or james.kostuch@windstream.com

We Energies Gas and Electric have facilities within the construction limits. It is imperative that the highway contractor contact We Energies if removing any gas facilities or electrical underground cables, to verify that they have been discontinued in its place and carry no natural gas or electrical current. The contractor must not assume that unmarked facilities have been discontinued in its place. At no time is it acceptable to push, pull, cut or drill an unmarked facility without explicit consent from We Energies. The contractor must call the We Energies 24 hour Dispatch lines to arrange for this verification.

We Energies Electric Dispatch # (800) 662-4797
We Energies Gas Dispatch # (800) 261-5325.

9. Railroad Insurance and Coordination.

A Description

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

A.1 Railroad Insurance Requirements

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

Notify evidence of the required coverage, and duration to Union Pacific Railroad Company at (312) 777-2043; 101 North Wacker Drive – Suite 1920, Chicago, IL 60606. Include the following information on the insurance document:

Project 1320-19-60
Route Name STH 11, Racine County
Crossing ID 176880U
Railroad Subdivision Union Pacific
Railroad Milepost 60.39

A.2 Work by Railroad

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

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

Contact John Venice, Manager Special Projects – Industry & Public Projects Engineering Department, 101 North Wacker Drive – Suite 1920, Chicago, IL 60606, TELEPHONE (312) 777-2043, FAX (402) 233-2769; email: jnvenice@up.com, for consultation on railroad requirements during construction.

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

A.4 Temporary Grade Crossing

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

A.5 Train Operation

Approximately 15 through freight trains operate daily through the construction site. Through freight trains operate at up to 50 mph.

10. 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
4. Disinfect your boat, equipment and gear by either:
    a. Washing with ~212º 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 (>104º 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)

11. Construction Over or Adjacent to Navigable Waters.

Add the following to standard spec 107.19:

The North Branch of the Pike River is classified as a navigable waterway.
107-060 (20150630)

12. 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 will 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, Kristina Betzold. 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.

Re-topsoil of graded areas, as designated by the engineer, immediately after grading is completed within those areas. Seed, fertilize, and mulch/erosion mat top-soiled areas, as designated by the engineer, within 5 calendar days after placement of topsoil. If graded areas are left exposed for more than 14 calendar days, seed those areas with temporary seed.

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.

Stockpile excess material or spoils on upland areas away from wetlands, floodplains and waterways. Stockpiled soil shall be protected against erosion. If stockpiled material is left for more than 14 calendar days, seed the stockpile with temporary seed.

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.

13. Erosion Control Structures.

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

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

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

John Roelke, License Number All-119523, inspected Structure B-51-0038 for asbestos on October 25, 2013. 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.

In accordance with 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-51-0038, STH 11 over N Br Pike River
- Site Address: 4.0M E JCT IH 94
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow Street, PO Box 798, Waukesha, WI 53187-0798
- Contact: Gary Metzer
- Phone: (262) 548-5685
- Age: 45 years old. This structure was constructed in 1971.
- Area: 3122 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)

15. Notice to Contractor, Section Corners and Witness Monuments.

Coordinate with the Southeastern Wisconsin Regional Planning Commission, John Washburn at (262) 953-4295 to perpetuate the following section corners at least two weeks prior to work near any public survey monument:

Station 250+00
Station 276+41
Station 302+81
Station 329+29

All section corner and witness monuments shall not be disturbed unless noted in the plan or directed by the engineer. Disturbed monuments not noted in the plans or approved by the engineer shall be paid for by the contractor.

16. Notice to Contractor, Village of Sturtevant Adjusting Manholes.

Coordinate with the Village of Sturtevant Director of Public Works, Jeff Seitz at (262) 770-2886 72 hours prior to any paving operations between 92nd and 86th St to ensure Village forces adjust any sanitary manhole covers located within these limits.

17. Notice to Contractor, Village of Mount Pleasant Reconstructing Manholes and Adjusting Manholes.

All new frame and covers/grates shall be supplied by the Village of Mount Pleasant, Mount Pleasant Sewer Utility Dist. #1. The Contractor shall obtain a casting request form from the inspector or engineer and then contact the appropriate utility 72 hours prior to work starting. Sanitary Sewer manhole castings shall be picked up by the Contractor from the Mount

Pleasant Sewer Utility Dist. #1 located at 8811 Campus Drive, Mt. Pleasant, WI, phone (262) 664-7800. All work shall be done in accordance to the following:

210. SANITARY MANHOLES

A. Standard Manhole - Type I.

1. Sanitary manholes shall be constructed in accordance with Chapter 3.5.0 and File Nos. 12, 12A, 13, and 15 of the "Standard Specifications" and these Special Provisions.

    a. Poured Manhole Base.

        (1) All manhole bases (benches) shall be poured in place in accordance with Subsection 3.5.5(b) of the "Standard Specifications". Precast manhole bases or precast integral base units will be allowed in accordance with Subsection 3.5.5(c), however, no precast base units with preformed benches are allowed. All manhole benches shall be poured in place.

2. Manholes shall be precast 48 inch inside diameter with eccentric cones.

    a. Adjusting Rings.

        (1) A minimum of 4 inches to a maximum of 19 inches of adjusting rings shall be furnished for each manhole, unless shown otherwise on the Plans. (Note: Type II Manholes - 3 inches minimum of rings is acceptable.)

        (2) Furnish manholes to minimize the chimney height required, so that chimney seal extensions will not be required. Note that a standard 9 inch seal covers a 6-1/2 inch chimney height.

        (3) Material - Adjusting rings shall be HDPE.

            (a) HDPE Adjusting Rings.

                1) Adjusting rings shall be injection molded High Density Polyethylene (HDPE) adjustment rings as manufactured by Ladtech, Inc., Lino Lakes, Minnesota, or equal. Install HDPE adjusting rings per the manufacturer recommendations.

b. Manhole depths shown on the Plans are approximate only, unless the cover elevation is indicated. Manhole covers shall be placed to match the existing grade unless the finished elevation is shown on the Plans.

(1) Place manhole covers 1/4 inch below the pavement grade in streets.

c. Plastic manhole steps shall be provided in accordance with Paragraph 3.5.4.4(g) of the "Standard Specifications".

3. Manhole Frames and Covers.

a. Manhole frames and covers shall be Neenah R-1580 with Type "B" self-sealing lids, non-rocking.

b. Manhole frames, where shown on the Plans as "Bolted Lid", when required, shall be furnished with Neenah R-1916-F watertight frame with standard Type "T" gasket sealed lid.

B. Frame/Chimney Joints.

1. Type II - Non-Flexible Watertight Frame/Chimney Joints.

a. All sanitary manholes located within road shoulders and terraces and at other areas not specified for Type I joints shall be constructed with Type II frame/chimney joints. Type II joints shall consist of the following:

(1) Adjusting rings and manhole frames shall be set with butyl rubber sealant troweled into a 1/4 inch thick layer over the entire surface areas of the top of cone and all adjusting rings. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade.

(2) A triple layer of eight (8) mil polyethylene wrap shall be applied around the manhole from the top of the frame to a minimum depth of 84 inches. The wrap shall extend at least 18 inches below the cone section. The wrap shall be applied as a bag or a sheet wrapped around the manhole in a continuous manner with seams bonded with waterproof tape.

2. Cone/Ring Dimensions.

    a. Manhole Cone Sections.

        (1) The top dimensions of cone sections shall be either 24 inches inside diameter by 36 inches outside diameter or 26 inches inside diameter by 38 inches outside diameter.

        (2) The outside diameter of the top of the cone section shall be as large as or larger than the base flange of the manhole casting.

    b. Adjusting Rings.

        (1) Adjusting ring dimensions shall match the dimensions of the top of the cone section; either 24″ x 36″ or 26″ x 38″.

        (2) Adjusting rings shall have flat or even bearing surfaces providing bearing contact over the entire contact surfaces.

        (3) HDPE adjusting rings shall be as specified in Subsection 210.A.2.a(3) of these Special Provisions, except the dimensions shall be as specified above.

    c. Center adjusting rings on manhole cones and center manhole castings on adjusting rings so that their surfaces will be flush whenever possible.

3. Sealing Manhole Chimneys.

    a. The entire outside surface of the manhole chimney, including all adjusting rings and overlapping both the manhole cone or flat-top slab (a minimum of 4 inches) and the manhole frame, shall be covered with a minimum 1/4 inch thick coating of butyl rubber sealant. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade.

        (1) Do not cover the outside surface of manhole chimneys with butyl rubber sealant on Type I manholes with external manhole chimney seals.

C. Manhole Riser Joints.

1. Joints for precast manhole riser sections shall be made with rubber “O”-ring gaskets, a continuous ring of butyl rubber sealant (EZ-Stik or Kent-Seal in rope form). The butyl sealant shall be 1 inch diameter equivalent or as recommended by the manhole manufacturer.

2. Joints for precast manhole barrel sections including the joint with the bottom of the cone shall be wrapped with an external joint seal as manufactured by Mar Mac Construction Products Company; Cretex Specialty Products; or CCI Pipeline Systems, LLC. The external manhole joint seal shall be installed in accordance with the manufacturer's instructions.

    a. If external joint seals require steel strapping, it shall be a minimum 5/8″ - 316 stainless steel with stainless steel "strap lock" fasteners.

    b. The cost of furnishing and installing manhole joint seals shall be included in the unit price(s) bid for sanitary manholes.

D. Manhole Lifting Holes.

1. All lifting holes in precast manhole sections shall be plugged using rubber plugs supplied by the manhole supplier. Non-shrink grout shall fill the entire void, after the plug has been installed from the outside, and shall be troweled at each face to provide smooth surfaces. Cement mortar shall not be used to plug lifting holes.

E. Manhole Pipe Connections.

1. Connections of pipes to manholes shall be made in accordance with Section 3.5.7 of the "Standard Specifications". All field tapped holes for connecting sewer pipe to manholes shall be made by coring.

2. All plastic pipe shall be connected to manholes by means of flexible watertight pipe to manhole seals in accordance with Subsection 3.5.7(c). Manhole seals shall be Kor-N-Seal or Link Seal. All clamps, bolts, etc. of pipe to manhole seals shall be stainless steel. If Link Seal connectors are used, the bolt heads shall be placed on the inside of manholes.

18. QMP Base Aggregate.

A Description

A.1 General

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

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

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

(4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:
1. Production and placement control and inspection.
2. Material sampling and testing.

(5) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's web site at: http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-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
≤ 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 ≤ 9000 tons	Three placement tests[2] [3]

[1] If using production tests for acceptance, submit test results to the engineer for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.

[2] For 3-inch material, obtain samples at load-out.

[3] If the actual quantity overruns 9000 tons, create overrun sublots to test at a rate of one additional placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

3. No control charts are required. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
4. Department verification testing is optional for quantities of 6000 tons or less.

(3) Material represented by a 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 Technician Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Sampling[1]
Aggregate Technician IPP Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Gradation Testing, Aggregate Fractured Particle Testing, Aggregate Liquid Limit and Plasticity Index Testing

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

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

B.3 Laboratory

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

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

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

B.4 Quality Control Documentation

B.4.1 General

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

B.4.2 Records

(1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute tabulated results using a method mutually agreeable to the engineer and contractor.

B.4.3 Control Charts

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

(2) Provide control charts to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:

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

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

B.5 Contractor Testing

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

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

(3) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

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

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

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

B.6 Test Methods

B.6.1 Gradation

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

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

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

(3) Maintain a separate control chart for each sieve size specified in standard spec 305 or standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:
   1. Control limits are at the upper and lower specification limits.
   2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
   3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.
   4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

B.6.2 Fracture

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

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

B.6.3 Liquid Limit and Plasticity

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

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

B.7 Corrective Action

B.7.1 General

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

B.7.2 Placement Corrective Action

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

(2) Notify the engineer whenever the running average exceeds a warning limit. When two consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:
   1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
   2. For fracture, increase the QC testing frequency to at least one test per gradation test.

(3) If corrective action improves the property in question such that the running average after 4 additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after 4 additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.

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

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:
   1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
   2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
   3. The fracture control limit is exceeded by more than 10.0 percent.

B.8 Department Testing

B.8.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within two business days after the department obtains the sample.

B.8.2 Verification Testing

B.8.2.1 General

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

(2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:
   1. One non-random test on the first day of placement.
   2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

(3) The department will sample randomly, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting;

except, for 3-inch aggregates, the department will collect samples from the stockpile at load-out. The department will split each sample, test half for QV, and retain half.

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

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

B.8.3 Independent Assurance

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

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

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

B.9 Dispute Resolution

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

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

(3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in

error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C (Vacant)

D (Vacant)

E Payment

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

(2) For material represented by a running average exceeding a control limit, the department will reduce pay by 10 percent of the contract price for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

301-010 (20151210)

19. HMA Pavement 4 MT 58-28 S, Item 460.6224.

A Description

This special provision describes providing HMA pavement including the binder under a combined bid item.

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

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

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

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

B Materials

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

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

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

[1] 14.5 for LT and MT mixes

[2] 15.5 for LT and MT mixes

Replace standard spec table 460-2 with the following to switch from E mixes to LT, MT, and HT mixes; and change the tensile strength ratio requirements to 0.75 without antistripping additive and 0.80 with antistripping additive:

TABLE 460-2 MIXTURE REQUIREMENTS

Mixture type	LT	MT	HT	SMA
ESALs x 106 (20 yr design life)	<2.0	2 - <8	>8	> 5 mil
LA Wear (AASHTO T96)				
100 revolutions(max % loss)	13	13	13	13
500 revolutions(max % loss)	50	45	45	40
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12
Freeze/Thaw (AASHTO T103) (specified counties, max % loss)	18	18	18	18
Fractured Faces (ASTM 5821) (one face/2 face, % by count)	65/ __	75 / 60	98 / 90	100/90
Flat and Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1 ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40	43	45	45
Sand Equivalency (AASHTO T176, min)	40	40	45	50
Gyratory Compaction				
Gyrations for Nini	6	7	8	8
Gyrations for Ndes	40	75	100	65
Gyrations for Nmax	60	115	160	160
Air Voids, %Va (%Gmm Ndes)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)
% Gmm Nini	<= 91.5[1]	<= 89.0[1]	<= 89.0	___
% Gmm Nmax	<= 98.0	<= 98.0	<= 98.0	___
Dust to Binder Ratio[2] (% passing 0.075/Pbe)	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80[4] [5]	65 – 75[3] [4]	65 - 75[3] [4]	70 - 80
Tensile Strength Ratio (TSR) (ASTM 4867)				
no antistripping additive	0.75	0.75	0.75	0.75
with antistripping additive	0.80	0.80	0.80	0.80
Draindown at Production Temperature (%)	___	___	___	0.30

[1] The percent maximum density at initial compaction is only a guideline.

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

[3] For #5 (9.5mm) and #4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 70 - 76%.
[4] For #2 (25.0mm) nominal maximum size mixes, the specified VFB lower limit is 67%.
[5] For #1 (37.5mm) nominal maximum size mixes, the specified VFB lower limit is 67%.

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

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

PAYMENT FOR MIXTURE[1] [2]

ITEM	PRODUCED WITHIN WARNING BANDS	PRODUCED OUTSIDE JMF LIMITS
Gradation	90%	75%
Asphalt Content	85%	75%
Air Voids	70%	50%
VMA	90%	75%

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

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

C Construction

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

TABLE 460-3 MINIMUM REQUIRED DENSITY[1]

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

[1] The table values are for average lot density. If any individual density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer may investigate the acceptability of that material.
[2] Includes parking lanes as determined by the engineer.
[3] Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

[4] Minimum reduced by 1.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.
[5] The minimum required densities for SMA mixtures are determined according to CMM 8-15.

D Measurement
Add the following to standard spec 460.4:

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

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

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

ITEM NUMBER	DESCRIPTION	UNIT
460.6224	HMA Pavement 4 MT 58-28 S	TON

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

In addition to any pay adjustment under standard spec 460.2.8.2.1.7(6), the department will adjust pay for nonconforming binder under the Nonconforming QMP Asphaltic Material administrative item. The department will deduct 25 percent of the contract unit price of the HMA Pavement bid item per ton of pavement placed with nonconforming PG binder the engineer allows to remain in place.
460-025 (20151210)

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

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

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.

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	Gradation Control on JMF
	9.5mm	
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 requirements		
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. 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.

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:

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)

21. Cleaning Parapets, Item 509.9050.S.

A Description
Clean the inside faces and top surface of the concrete parapet according to the plans, as directed by the engineer, and as hereinafter provided.

B (Vacant)

C Construction
C.1 Blast Cleaning Operation
Blast clean the inside face and top surface of the concrete parapet according to SSPC SP-13 and ASTM D4259 for an abrasive blast cleaning to a surface roughness and finish as directed by the engineer. Before abrasive blast cleaning operations are to begin for the entire bridge parapet, prepare a representative trial area on the parapet concrete surface, and have the method of blast cleaning approved by the engineer.

C.2 Water Cleaning Operation
After abrasive blast cleaning operations are completed, clean the prepared parapet surface with water according to ASTM D4258. Remove with this water cleaning all dust and loose material from the parapet inside face and top that is to be coated with pigmented surface sealer. Provide an adequate drying time of the parapet inside face and top surface of at least 24 hours before coating with the pigmented surface sealer. Remove all loose concrete, dirt, dust, or blast material that remains on the bridge deck, as directed by the engineer.

D Measurement
The department will measure Cleaning Parapets in length by the linear foot of parapet, acceptably cleaned.

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

ITEM NUMBER	DESCRIPTION	UNIT
509.9050.S	Cleaning Parapets	LF

Payment is full compensation for abrasive blast cleaning; for water cleaning; and for furnishing all additional cleanup of the concrete surface and surrounding bridge deck area.
509-050 (20151210)

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

A Description

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

B Materials

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

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

C Construction

C.1 General

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

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

C.2 Groove Depth

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

C.3 Groove Width – Longitudinal Markings

Cut the groove 1-inch wider than the width of the tape.

C.4 Groove Position

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

C.5 Groove Cleaning

C.5.1 Concrete

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

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, and prior to pavement marking application. The groove surface shall be clean and dry before applying the adhesive, and the pavement marking tape. Use a high-pressure air blower with at least 185 ft^3/min air flow and 120 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 New Asphalt

Groove pavement five or more days after paving.

Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

C.5.3 Existing Asphalt

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

Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

C.6 Tape Application

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

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

1) For the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee:

    - Apply SPA-60 during May 1 to September 30, both dates inclusive due to Volatile Organic Compound Limitations..

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

2) For the remainder counties:

    - Apply either adhesive.

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

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

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

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

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

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

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.

24. Section 652 Electrical Conduit.

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 (4) with the following:

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

25. 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.

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 5 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 3500 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.

26. Grabber Cones, Item SPV.0045.01.

A Description
This special provision describes furnishing and installing traffic control Grabber Cones as supplementary traffic control devices.

B Materials
Furnish nonmetallic UV resistant 42-inch Grabber Cones conforming to standard spec 643 that are fluorescent orange in color with 4-inch or 6-inch reflective collars and a recessed bolt hole fabricated to accept Type C (steady burn) or Type A (low intensity flashing) warning lights. The Grabber Cone shall have a detachable rubber base that is a minimum of 16 lbs in weight. Provide reboundable reflective sheeting for the collars meeting standard spec 643.2. Grabber Cones shall be safety compliant and conform to a NCHRP-350 Test Level 3 or the Manual for Assessing Safety Hardware (MASH) and meet the criteria for acceptable devices in the American Traffic Safety Services Association (ATSSA) publication 'Quality Guidelines for Temporary Traffic Control Devices'. Devices the ATSSA guide defines as unacceptable will not be allowed.

C Construction
Install Grabber Cones according to standard spec 643 and Part 6 of the MUTCD.

D Measurement
The department will measure Grabber Cones by the Day as each individual installed and removed, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0045.01	Grabber Cones	DAY

Payment is full compensation for providing, installing, moving and removing Grabber Cones including the base weights.
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27. Pavement Marking Grooved Preformed Thermoplastic Words, Item SPV.0060.01; Arrows Type 2, Item SPV.0060.02; Arrows Type 1, Item SPV.0060.07; Arrows Type 3, Item SPV.0060.10; Yield Line Symbols 18-Inch, Item SPV.0060.04; Stop Line 18-Inch, Item SPV.0090.01; Crosswalk 24-Inch, Item SPV.0090.02; Crosswalk 6-Inch, Item SPV.0090.03.

A Description

This special provision describes grooving the pavement surface, and furnishing and installing preformed thermoplastic pavement marking as shown on the plans, according to standard spec 647 of the standards specifications, and as hereinafter provided.

B Materials

Furnish 125 mils preformed thermoplastic pavement marking from the department's approved products list. If required, furnish sealant material recommended by the manufacturer.

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 preformed thermoplastic pavement marking.

Plane the grooved lines according to the plan details. 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 deep from the pavement surface or, if tined, from the high point of the tined surface. Measure depth using a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Linear Markings

Cut the groove 1-inch wider than the width of the thermoplastic.

C.4 Groove Position

Position the groove edge according to the plan details.

C.4.1 Linear Marking

Groove at a minimum of 4-inches, but not greater than, 12-inches from both ends of the line segment. Achieve straight alignment with the grooving equipment.

C.4.2 Special Marking

Groove at a minimum of 4-inches from the perimeter of the special marking. Groove separate areas for Word Items.

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 sealant, and placement of the pavement marking. Use a high-pressure air blower with at least 185 ft^3/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 Asphalt

Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

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.

C.6 Preformed Thermoplastic Application

Preheat the surface if necessary based on manufacturer's recommendation.

Apply preformed thermoplastic in the groove as per manufacturer's recommendations. If manufacturer's recommendations require a sealant, apply a sealant 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 sealant in the remainder counties and for the remainder of the year. The sealant must be wet.

D Measurement

The department will measure Pavement Marking Grooved Preformed Thermoplastic (Type) by each unit, acceptably placed, or 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.0060.01	Pavement Marking Grooved Preformed Thermoplastic Words	Each
SPV.0060.02	Pavement Marking Grooved Preformed Thermoplastic Arrows Type 2	Each
SPV.0060.04	Pavement Marking Grooved Preformed Thermoplastic Yield Line Symbols 18-Inch	Each
SPV.0060.07	Pavement Marking Grooved Preformed Thermoplastic Arrows Type 1	Each
SPV.0060.10	Pavement Marking Grooved Preformed Thermoplastic Arrows Type 3	Each
SPV.0090.01	Pavement Marking Grooved Preformed Thermoplastic Stop Line 18-Inch	LF
SPV.0090.02	Pavement Marking Grooved Preformed Thermoplastic Crosswalk 24-Inch	LF
SPV.0090.03	Pavement Marking Grooved Preformed Thermoplastic Crosswalk 6-Inch	LF

Payment is full compensation for cleaning and preparing the pavement surface, furnishing and installing the material.

28. Hydro Excavation, Item SPV.0060.03.

A Description

This specification covers the Hydro Excavation of existing utility facilities under unpaved surfaces beyond the curb and pavement structure prior to roadway excavation for the purpose of determining utility location and elevations.

B Materials

Granular Backfill

Furnish granular backfill that conforms to standard spec 209.

C Construction

C.1 General

Contractor shall have equipment capable of excavating holes up to 12 feet deep, in all types of soil.

Submit all requests for Hydro Excavation in writing to the engineer for approval prior to performing the work. Coordinate Hydro Excavation for utility exposures with the engineer and notify the utility owner or their agents of this work two business days in advance so that they may present when the work commences.

Do not use Hydro Excavation within the pavement structure including lanes, curb and gutter, and shoulders.

C.2 Excavation
Remove all unpaved surfaces at Hydro Excavation locations. Maintain drainage at all times according to standard spec 205.3.3. Perform work according to all applicable laws, ordinances, rules, regulations, and OSHA standards.

Notify the utility owner promptly if damage or interruption of service occurs. Repair all damage caused to such utilities resulting from negligence or carelessness on the part of the contractor's operation at contractor expense.

The utility location shall remain exposed and available for visual inspection until the completion of all work in a given location. If the utility shall remain exposed overnight or for prolonged periods of time, protect the location with traffic-rated steel plating, safety barriers, and all necessary traffic control devices that may be required under applicable standards or as directed by the engineer.

C.3 Backfilling
Upon completion of the Hydro Excavation, restore the location in kind to its original condition. Use granular backfill, conforming to standard spec 209, to backfill the hydro excavated utility locations to existing grade.

D Measurement
The department will measure Hydro Excavation as a unit for each location, acceptably completed. A location may have multiple utilities located within the same exposure area.

Payment will only be made for one unit regardless of the number of utilities exposed. The distance from the existing ground elevation, located above the existing utility, to a point up to 18-inches below the exposed utility will pay single unit of work.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Hydro Excavation	Each

Payment is full compensation for furnishing all excavation; for disposing of all materials; for water including heated water for frozen ground; for furnishing all maintenance of the location during construction; for furnishing all traffic control, safety barriers, and steel plating required; and for furnishing and placing granular backfill.

29. Lamp Disposal High Intensity Discharge, Item SPV.0060.05.

A Description
This special provision describes packaging, palletizing, and returning HID (metal halide; mercury vapor and high-pressure sodium) lamps removed under this contract to the department at the South 60th Street, West Allis, location.

B (Vacant)

C Construction

Lamps that the contractor turns in to the department will be considered the property of the department for proper future disposal. The contractor will have no further obligation for their disposal. The department will reject improperly packaged lamps.

Deliveries to the department shall be prearranged. Deliveries shall be consolidated into a truckload or more, except that where all the lamps removed under a contract measure less than a truckload, all shall be delivered as one load at one time.

Pack intact lamps in the packaging of the new lamps used to replace the old lamps, or packaging affording the equivalent protection. Deliver in full, closed, stackable cartons with the name of the contractor, the number and type/ wattage of lamps clearly written on each carton.

Pack broken lamps into minimum 6 mil plastic bags, which in turn shall be placed inside sturdy cardboard boxes or the equivalent, with the number of lamps clearly marked on each box. Mark the outer packaging "broken lamps". The department will reject metal containers.

Deliver all broken lamps, as noted above. The department will not pay broken lamps above a level of ten percent of the total number in the contract. Deliver broken lamps above the ten percent level to the department for no compensation.

If palletized, cartons shall be piled no more than two high and shall be secured with shrink-wrap to prevent shifting or falling loads. Label the pallets by the number and type/ wattage of lamps, and the name of the contractor.

The department will reject any lamps not removed as part of a contract pay item or otherwise required under this contract.

D Measurement

The department will measure Lamp Disposal High Intensity Discharge by each unit delivered to the department properly packaged. This payment will be in addition to payment for the work under which the lamps are removed from service.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Lamp Disposal High Intensity Discharge	Each

Payment is full compensation for packaging, palletizing and delivering lamps without breakage.

30. Removing Luminaires, Item SPV.0060.06.

A Description
The work under these items shall consist of removing luminaires as shown on the plans. Luminaires are to be disposed of by the contractor. Lamp disposal will be measured and paid separately.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Removing Luminaires and by each unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.06	Removing Luminaires	Each

Payment is full compensation for removing, delivering, and disposing of material.

31. Removing Concrete Collar for Driveway Culvert, Item SPV.0060.08.

A Description
Remove Concrete Collars at driveway ends according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction
Remove concrete collars per standard spec 204. Concrete shall be removed in such as way as to not cause damage to the driveway culvert pipe.

D Measurement
The department will measure Removing Concrete Collars, removed at the locations indicated on the plans, by each individual unit, acceptably completed.

E Payment
Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.08	Removing Decorative Concrete	Each

32. Grading Sloped Endwall Area, Item SPV.0060.09.

A Description
This special provision describes grading sloped endwall area, at driveway culvert locations only, as directed by the engineer and according to the pertinent provisions of standard spec 205.

B (Vacant)

C Construction
Construct embankment slopes as shown on the plans.
Properly dispose of all surplus and unsuitable material according to standard spec 205.3.12.

D Measurement
The department will measure Grading Sloped Endwall Area as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.09	Grading Sloped Endwall Area	Each

Payment is full compensation for providing required material, grading at endwall area, and removal of waste.

Any required topsoiling, fertilizing, seeding or mulching will be paid for under the applicable items.

33. Bridge Joint Route and Seal, Item SPV.0090.04.

A Description
This special provision describes sawing, routing, cleaning, drying, and sealing the existing bridge joints after they have been overlaid with Polymer Modified Asphalt. The work shall conform to the plan details and as hereinafter provided.

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

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

to the engineer a certificate of compliance and a copy of the manufacturer's recommendations on heating and applying the sealant.

C Construction

C.1 Equipment

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

Prior to routing perform a single-pass full depth sawcut of the Polymer Modified Asphalt along the centerline of the existing joints.

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

C.2 Methods

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

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

Sawcutting, routing, cleaning, and drying operations shall not damage the existing joints.

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

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

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

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

D Measurement
The department will measure Bridge Joint Route and Seal by the linear foot, acceptably completed, measured along the centerline of the joint.

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	Bridge Joint Route and Seal	LF

Payment is full compensation for saw cutting, routing, cleaning, drying, and for furnishing and installing sealant.

34. Sawing Pavement Deck Preparation Areas, Item SPV.0090.05.

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 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 NUMBER	DESCRIPTION	UNIT
SPV.0090.05	Sawing Pavement Deck Preparation Areas	LF

Payment is full compensation for making all saw cuts; and for debris disposal.

35. Pavement Marking Grooved Preformed Plastic Tape 4-Inch, Item SPV.0090.06.

A Description

This special provision describes furnishing, grooving, and installing preformed plastic pavement marking tape as shown on the plans, in accordance 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.

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 in accordance 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 1-inch wider than the width of the tape.

C.4 Groove Position
Position the groove edge in accordance 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 ft^3/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 ft^3/min air flow and 90 psi air pressure to clean the groove.

C.5.3 Existing Asphalt
Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

C.6 Tape Application
Apply the tape when both the air and surface temperature are 40 degrees F and rising.

Apply tape in the groove as per manufacturer's recommendations. If manufacturer's recommendations require surface preparation adhesive, 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 4-Inch in length by the linear foot of tape, placed in accordance 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.0090.06	Pavement Marking Grooved Preformed Plastic Tape 4-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.

36. Pavement Marking Contrast Epoxy 4-Inch, Item SPV.0090.07.

A Description
This special provision describes furnishing and installing contrast epoxy pavement marking in accordance to standard spec 646.

B Materials
Furnish epoxy pavement marking materials in accordance to standard spec 646.

C Construction
Contractor shall apply the 1 ½ wide black epoxy with a 4-inch separation between the two black lines for the first pass, followed by a 4-inch wide white epoxy line second pass, for a total width of 7-inches. Construct epoxy pavement marking in accordance to the pertinent requirements of standard spec 646.3.

D Measurement

The department will measure Pavement Marking Contrast Epoxy 4-Inch, acceptably completed, in accordance to standard spec 646.4 for solid and intermittent lines. This item, measured by the linear foot of 4 inch wide white plus 1 ½" black on each side for a total of 7 inch wide line will be calculated by multiplying the specified length of the total width marking of the line placed by the contractor and accepted by the department.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.07	Pavement Marking Contrast Epoxy 4-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, for protecting until cured; and for replacing marking improperly constructed or that fails during the proving period.

37. Rectangular Rapid Flashing Beacon (RRFB) System Station 262+20 Right, Item SPV.0105.01; Station 262+20 Left, Item SPV.0105.02; Station 263+25 Right, Item SPV.0105.03; Station 263+25 Left, Item SPV.0105.04; Station 301+80 Right EB, Item SPV.0105.05; Station 301+80 Right WB, Item SPV.0105.06; Station 302+30 Left EB, Item SPV.0105.07; Station 302+30 Left WB, Item SPV.0105.08.

A Description

This work shall consist of furnishing and installing to the department a solar powered rectangular rapid flashing beacon (RRFB) system consisting of multiple assemblies as described herein and as shown in the plans. Each assembly shall be solar powered and pedestrian activated. The assemblies shall be wirelessly controlled and multiple units shall be synchronized.

B Materials

Furnish a RRFB system with multiple assemblies. Each assembly may consist of, but not limited to, light indications, and electrical components (wiring, solid-state circuit boards, etc). An assembly may include the following items:

(1) Light Indications

1. Each indication shall be a minimum size of approximately 7" wide x 3" high with 8 high power LEDs
2. Two indications shall be installed on an assembly facing in the direction of approaching vehicular traffic. The two indications shall be aligned horizontally, with the longer dimension of the indication horizontal, and a minimum space between the two indications of

approximately 7” measured from inside edge of one indication to inside edge of second indication.

3. A 6 LED indication or a single hi intensity LED shall be installed on an assembly facing in the direction of approaching pedestrian traffic to serve as a confirmation for the pedestrian that the system has been activated.
4. The outside edges of the two indications, including any housing, shall not protrude beyond the outside edges of the integral signage of the assembly.
5. The light intensity of the indications shall be certified to meet the minimum specifications of the Society of Automotive Engineers (SAE) standard J595 Class 1(Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005 and be available upon request
6. Each indication shall be located between the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque.
7. All exposed hardware shall be anti-vandal.
8. All individual components of the system shall be replaceable to allow for easy field repair and maintenance.

(2) Sign

1. All signs shall be supplied and installed under a separate bid item. However, the assemblies must be constructed to allow the appropriate space for the installation of the signs in the field.

(3) Control Circuit

1. The control circuit shall have the capability of independently flashing up to two independent outputs. The LED light outputs and flash pattern shall be completely programmable using windows based software
2. The controller shall be web enabled to allow for remote programming and system diagnostics. Including flash time, flash pattern and report system information, such as battery voltage, and temperature.
3. The flashing output shall have 70 to 80 periods of flashing per minute with a 100 – millisecond duration on time. The output shall reach the output current as programmed for the duration of the pulse.
4. Each of the two yellow indications shall have 70 to 80 periods of flashing per minute and shall have alternating, but approximately equal, periods of flashing light emissions and dark operation. During each of its 70 to 80 flashing periods per minute, the yellow indications on the left side of the RRFB shall emit two slow pulses of light after which the yellow indications on the right side of the RRFB shall emit four rapid pulses of light followed by a long pulse. A WW +S flash pattern is considered an or equal.

5. Flash rates with the frequencies of 5 to 30 flashes/second shall not be used to avoid inducing seizures.
6. The control circuit shall be installed in an IP67 NEMA rated enclosure.
7. All circuit connectors shall conform to Ingress Protection, IP-67 rating, dust proof, and protected from temporary immersion in water up to 3 feet deep for 30 minutes. Connectors shall be Deutsch DTM series or approved equal
8. All individual components of the system shall be replaceable to allow for easy field repair and maintenance.

(4) Battery

1. The Battery shall be a 12VDC Absorbed Glass Mat (AGM) sealed lead-acid, maintenance-free battery.
2. The Battery shall be rated at 45AH minimum and shall conform to Battery Council International (BCI) specifications.
   All batteries shall be sealed in a plastic film to provide moisture and corrosion resistance.
3. The Battery shall have a minimum operating temperature range of -76º to 140ºF (-60º to 60ºC).
4. All battery connectors shall conform to Ingress Protection, IP-67 rating, dust proof, and protected from temporary immersion in water up to 3 feet deep for 30 minutes. Connectors shall be Deutsch DTM series or approved equal
5. The Battery shall be solar-charged with a capacity up to 30 days of autonomy without sunlight, varying with ambient temperature and number of activations. Solar calculations shall be provided

(5) Wireless Radio

1. Radio control shall operate on 900 MHz frequency hopping spread spectrum network.
2. Radio shall integrate with communication of RRFB system control circuit to activate light indications from pushbutton input.
3. The Radio shall synchronize all of the remote light indications so they will turn on within 120 msec of each other and remain synchronized through-out the duration of the flashing cycle.
4. Radio systems shall operate from 3.6 vdc to 15vdc.
5. The Radio unit shall have an LCD display to program flash time and communicate system information, such as battery voltage, battery temperature and solar charge level an onboard diagnostics.6. All individual components of the system shall be replaceable to allow for easy field repair and maintenance.

(6) Pushbutton

1. The pushbutton shall be capable of continuous operation over a temperature range of -30 degrees F to 165 degrees F (-34 degrees C to 74 degrees C).
2. Pushbutton shall be ADA compliant.

(7) Solar Panel

1. The Solar Panel shall provide 55 watts at peak total output.
2. The Solar Panel shall be affixed to an aluminum plate and bracket, adjustable at an angle of 45°- 60° to facilitate adjustment for maximum solar collection and optimal battery strength.
3. The Solar Panel Assembly (panel, plate and bracket) shall be mounted on a 360º rotatable pole cap mount, to facilitate adjustment for maximum solar collection and optimal battery strength.
4. The Solar Panel shall have a minimum operating temperature range of -40º to 185ºF (-40º to 85ºC).

(8) Pedestal Shaft

1. Shall meet the requirements as set forth in standard spec 657.2.4 for highway and structure construction.
2. Shall be a standard 4.5" OD aluminum pedestal pole. Supplied with one end threaded for easy installation into a pedestal base.
3. Shall be a 13’ Schedule 80 pipe raw aluminum.
4. Incidental to RRFB.

(9) Pedestal Base

1. Shall meet the requirements as set forth in standard spec 657.2.5 for highway and structure construction.
2. The pedestal base shall be a cast aluminum pedestals mount on a concrete base attached by four internal anchor bolts imbedded in the base.
3. The Base shall have a large 8.5" square hand hole cover allowing access to the interior of the base.
4. Incidental to RRFB.

(10) Concrete Base

1. Shall meet the requirements as set forth in standard spec 654.2.1 for highway and structure construction, as applicable.
2. The concrete base shall be a Type 1 base (WisDOT bid item 654.0101) or approved equivalent.
3. Incidental to RRFB

(11) Anchor Bolts

1. The anchor bolts shall be galvanized steel 1" x 42".
2. Set of 4 includes lock washer and nut.
3. Incidental to RRFB.

(12) Remote Wireless Pedestal Bollard and Push Button – Solar Powered

1. 3.5 foot aluminum threaded pole and pedestal base per SDD 9E 7-5 for pedestrian push button typical mounting for remote button to activate the RRFB.
2. Aluminum breakaway pedestal base.
3. Aluminum cabinet with lock and key with external antenna.
4. Radio control shall operate on 900 mhz frequency hopping spread spectrum network.
5. Radio shall integrate with communication of LED sign control circuit to activate sign from pushbutton input.
6. All radio systems shall operate on 3.6 vdc ot 15 vdc.
7. The push button shall be capable of continuous operation over a temperature range of -30 F to 165 degrees F (-34 degrees C to 74 degrees C).
8. Push button shall be ADA compliant.
9. Locate next to crosswalk at curb ramp as directed by construction engineer in the field.
10. Provide necessary concrete base per SDD 9C 2-6.
11. Incidental to RRFB's.

C Construction

The RRFB system will consist of multiple assemblies to be constructed by the contractor as shown on the plans.

D Measurement

The department will measure furnishing to the department a rectangular rapid flashing beacon (RRFB) system as a lump sum, as shown on the plans, acceptable furnished and delivered.

E Warranty: System shall be supported by a one year manufacturer's warranty.

F 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	Rectangular Rapid Flashing Beacon (RRFB) System Station 262+20 Right	LS
SPV.0105. 02	Rectangular Rapid Flashing Beacon (RRFB) System Station 262+20 Left	LS
SPV.0105. 03	Rectangular Rapid Flashing Beacon (RRFB) System Station 263+25 Right	LS
SPV.0105. 04	Rectangular Rapid Flashing Beacon (RRFB) System Station 263+25 Left	LS
SPV.0105. 05	Rectangular Rapid Flashing Beacon (RRFB) System Station 301+80 Right EB	LS

SPV.0105. 06	Rectangular Rapid Flashing Beacon (RRFB) System Station 301+80 Right WB	LS
SPV.0105. 07	Rectangular Rapid Flashing Beacon (RRFB) System Station 302+30 Left EB	LS
SPV.0105. 08	Rectangular Rapid Flashing Beacon (RRFB) System Station 302+30 Left WB	LS

Payment is full compensation for providing and installing a fully operational RRFB system consisting of multiple assemblies.

NOTE: The RRFB's at Station 301 +80 and Station 302 +30 are back to back and on one pole with 2 RRFB's mounted on either side with one push button pedestrian remote pole facing the trail crossing.

NOTE: The RRFB's at 86th Street have 4 remote push button pedestrian poles next to the sidewalk in each quadrant of the intersection. Contact engineer to determine exact locations.

NOTE: The RRFB's at the Trail Crossing near Station 312 have 2 remote push button pedestrian poles next to the trail on each side of the road. Contact engineer to determine exact locations.

38. Removing Overhead Sign Support STH 11 EB at 86th Street, Item SPV.0105.09; STH 11 WB at 86th Street, Item SPV.0105.10.

A Description

Work under this item shall consist of removing the overhead sign structure and footing. The sign on the structure is paid for under a separate pay item, i.e. removing signs type II. See signing plans for location.

B (Vacant)

C Construction

Remove overhead sign supports and concrete footings, backfill the resulting holes, and dispose of all materials outside of the right-of-way according to standard spec 204.3 and 638.3. Concrete footing shall be removed to 2' below the existing ground. The reinforcement shall be cut off flush with the top of the concrete. The footing shall be then covered with topsoil and seeded. This is all incidental to Remove Overhead Sign Structure.

D Measurement

The department will measure Removing Overhead Sign Support (Location), as a single lump sum unit of work, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.09	Removing Overhead Sign Support STH 11 EB at 86th Street	LS
SPV.0105.10	Removing Overhead Sign Support STH 11 WB at 86th Street	LS

Payment in full compensation for disassembling, removing, including concrete footings, backfilling, and disposal of all materials.
638-SER1 (20040405)

39. Remove Loop Detector Wire and Lead-in Cable, STH 11 and 90th Street, Item SPV.0105.11; STH 11 and Oakes Road, Item SPV.0105.12.

A Description
This special provision describes removing loop detector wire and lead-in cable at the intersections of STH 11 and 90th Street and STH 11 and Oakes Road. Removal will be according to standard spec 204, as shown in the plans, and as hereinafter provided.

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 loop detector wire and lead-in cable.

Remove and dispose of detector lead-in cable including loop wire for abandoned loops off the right-of-way.

D Measurement
The department will measure Remove Loop Detector Wire and Lead-in Cable 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.0105.11	Remove Loop Detector Wire and Lead in Cable, STH 11 and 90th Street	LS
SPV.0105.12	Remove Loop Detector Wire and Lead in Cable, STH 11 and Oakes Road	LS

Payment is full compensation for removing, scrapping, and disposing of material and incidentals necessary to complete the contract work.

40. EVP Detector Head Installation, STH 11 and 90th Street, Item SPV.0105.13; STH 11 and Oakes Road, Item SPV.0105.14.

A Description

This special provision describes the transporting and installing of department furnished Emergency Vehicle Preemption (EVP) Detector Heads and EVP Detector Head Mounting Brackets at STH 11 and 90th Street and STH 11 and Oakes Road.

B Materials

Use materials furnished by the department including: Emergency Vehicle Preemption (EVP) Detector Heads and EVP Detector Head Mounting Brackets.

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 three working days prior to picking the materials up.

C Construction

Install the EVP detector heads and EVP detector head mounting brackets as shown on the plans. The department will determine the exact location to ensure that the installation does not create a sight obstruction. The department will terminate the EVP cable ends and install the discriminators and card rack in the cabinet.

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

D Measurement

The department will measure EVP Detector Head Installation (Location) 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 NUMBER	DESCRIPTION	UNIT
SPV.0105.13	EVP Detector Head Installation, STH 11 and 90th Street	LS
SPV.0105.14	EVP Detector Head Installation, STH 11 and Oakes Road	LS

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

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:

550.5.2 Piling

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

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

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

643.2.1 General

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

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

Errata

Make the following corrections to the standard specifications:

641.2.9 Overhead Sign Supports

Correct errata adding back accidentally deleted paragraphs one through three.

(1) Provide commercially fabricated overhead sign supports conforming to AASHTO design and fabrication standards for structural supports for highway signs, luminaires, and traffic signals. Use a design life of 50 years with a wind importance factor of 1.00. Design to withstand a 3 second gust wind speed of 90 mph. Do not use the methods of appendix C of those AASHTO standards.

(2) Design structures, listed as applicable structure types in the AASHTO standards, to the fatigue category criteria as follows:

1. Structures carrying variable message signs:
   - Category I criteria for structures over all roadway types.
2. Structures carrying type II or III signs:
   - Category I criteria for structures used over highways and free flow ramps.
   - Category II criteria for structures with arms greater than 30 feet used over local roads and city streets.
   - Category III criteria for structures with arms 30 feet or less used over local roads and city streets.

(3) Use the posted speed limit of the roadway beneath the structure for truck-induced gusts.

(4) Submit shop drawings identified by structure number, design computations, and material specifications, to the engineer before erecting sign supports. Provide tightening procedures for mast arm or luminaire arm to pole shaft connections on the shop drawings. Have a professional engineer registered in the state of Wisconsin sign, seal, and date the shop drawings and certify that the design conforms to AASHTO standards and the contract.

(5) Provide steel pole shafts and mast arms zinc coated according to ASTM A123. Provide tapered pole and arm shafts with a minimum taper of 0.14 inch per foot for single-member vertical and single-member horizontal structure components. Provide bolts and other hardware conforming to 641.2.2.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 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

Effective August 2015 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this “Buy America” provision.

http://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

Upon completion of the project certify to the engineer, in writing using department form WS4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form WS4567 is available at:

http://wisconsindot.gov/hcciDocs/contracting-info/ws4567.doc

Effective with September 2004 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS AND TRANSPORTATION FACILITIES

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

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

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
RACINE 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, 2015

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

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

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

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

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

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Bricklayer, Blocklayer or Stonemason	35.10	18.39	53.49
Carpenter	33.68	19.99	53.67
Cement Finisher	30.49	21.47	51.96
Future Increase(s): Add $1.87 on 6/1/15; Add $1.75 on 6/1/16. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	33.93	22.77	56.70
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Fence Erector	23.73	19.09	42.82
Ironworker	30.77	23.97	54.74
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Line Constructor (Electrical)	37.43	15.48	52.91
Painter	29.22	16.69	45.91
Pavement Marking Operator	30.27	18.79	49.06
Piledriver	30.11	26.51	56.62
Future Increase(s): Add $1.50/hr on 6/1/2015; Add $1.60/hr on 6/1/2016. Premium Pay: Add $.65/hr for Piledriver Loftsman; Add $.75/hr for Sheet Piling Loftsman. DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Roofer or Waterproofer	29.40	17.05	46.45
Teledata Technician or Installer	22.25	12.33	34.58
Tuckpointer, Caulker or Cleaner	35.10	18.39	53.49

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Underwater Diver (Except on Great Lakes)	35.40	15.90	51.30
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	35.55	15.57	51.12
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	31.60	14.64	46.24
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	27.65	13.44	41.09
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.68	12.83	38.51
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.63	33.38
TRUCK DRIVERS			
Single Axle or Two Axle	25.18	18.31	43.49
Future Increase(s): Add $1.15/hr on 6/1/2015. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Three or More Axle	28.75	13.54	42.29
Articulated, Euclid, Dumptor, Off Road Material Hauler	30.27	21.15	51.42
Future Increase(s): Add $1.25/hr on 6/1/2015; 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:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Pavement Marking Vehicle	23.16	17.13	40.29
Shadow or Pilot Vehicle	24.37	17.77	42.14
Truck Mechanic	28.75	13.54	42.29
LABORERS			
General Laborer	26.12	20.03	46.15
Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: Add $.10/hr for topman; Add $.15/hr for air tool operator, joint sawer and filler (pavement), vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add $.26/hr for bottomman; Add $.35/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement), strike off man; Add $.32/hr for and line and grade specialist; Add $.65/hr for blaster and powderman; Add $.75/hr for pipelayer. / DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	22.05	18.41	40.46
Landscaper	26.12	20.03	46.15
Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	23.26	20.03	43.29
Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr when the Wisconsin			

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.71	16.01	33.72
Railroad Track Laborer	14.50	3.55	18.05
HEAVY EQUIPMENT OPERATORS			
Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type).	37.72	21.15	58.87
Future Increase(s): Add $1.25/hr on 6/1/2015; 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:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
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.	37.22	21.15	58.37
Future Increase(s): Add $1.25/hr on 6/1/2015; 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:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
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 yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle	36.72	21.15	57.87

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
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 $1.25/hr on 6/1/2015; 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:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint 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 $1.25/hr on 6/1/2015; 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:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.	36.46	21.15	57.61
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 $1.25/hr on 6/1/2015; 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:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.	36.17	21.15	57.32
Fiber Optic Cable Equipment.	28.89	17.95	46.84
Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	41.65	21.71	63.36
Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	35.72	17.85	53.57
Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks-Great Lakes ONLY.	35.46	20.40	55.86

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

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SECTION 0001 Roadway Items					
0010	201.0110 Clearing	40.000 SY		.		.
0020	201.0210 Grubbing	40.000 SY		.		.
0030	203.0200 Removing Old Structure (station) 01. 302+81.5	LUMP	LUMP			.
0040	204.0100 Removing Pavement	2,155.000 SY		.		.
0050	204.0115 Removing Asphaltic Surface Butt Joints	235.000 SY		.		.
0060	204.0125 Removing Asphaltic Surface Milling	6,670.000 TON		.		.
0070	204.0150 Removing Curb & Gutter	2,415.000 LF		.		.
0080	204.0155 Removing Concrete Sidewalk	380.000 SY		.		.
0090	204.0165 Removing Guardrail	75.000 LF		.		.
0100	208.0100 Borrow	58.000 CY		.		.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0110	305.0110 Base Aggregate Dense 3/4-Inch	180.000 TON	.		.	
0120	305.0120 Base Aggregate Dense 1 1/4-Inch	1,140.000 TON	.		.	
0130	311.0110 Breaker Run	1,600.000 TON	.		.	
0140	390.0303 Base Patching Concrete	2,285.000 SY	.		.	
0150	390.0403 Base Patching Concrete Shes	615.000 SY	.		.	
0160	416.0160 Concrete Driveway 6-Inch	26.000 SY	.		.	
0170	440.4410 Incentive IRI Ride	15,100.000 DOL	1.00000		15100.00	
0180	455.0605 Tack Coat	4,830.000 GAL	.		.	
0190	460.2000 Incentive Density HMA Pavement	5,080.000 DOL	1.00000		5080.00	
0200	460.4000 HMA Cold Weather Paving	410.000 TON	3.00000		1230.00	
0210	460.6224 HMA Pavement 4 MT 58-28 S	8,230.000 TON	.		.	

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0220	465.0110 Asphaltic Surface Patching	125.000 TON		.		.
0230	465.0120 Asphaltic Surface Driveways and Field Entrances	31.000 TON		.		.
0240	502.0100 Concrete Masonry Bridges	11.000 CY		.		.
0250	502.3210 Pigmented Surface Sealer	79.000 SY		.		.
0260	502.6102 Masonry Anchors Type S 1/2-Inch	232.000 EACH		.		.
0270	502.6105 Masonry Anchors Type S 5/8-Inch	232.000 EACH		.		.
0280	505.0600 Bar Steel Reinforcement HS Coated Structures	1,830.000 LB		.		.
0290	509.0301 Preparation Decks Type 1	17.000 SY		.		.
0300	509.0302 Preparation Decks Type 2	3.000 SY		.		.
0310	509.1500 Concrete Surface Repair	35.000 SF		.		.
0320	509.2000 Full-Depth Deck Repair	1.000 SY		.		.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0330	509.3500.S HMA Overlay Polymer-Modified	46.000 TON		.		.
0340	509.9050.S Cleaning Parapets	186.000 LF		.		.
0350	521.1518 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1	2.000 EACH		.		.
0360	601.0409 Concrete Curb & Gutter 30-Inch Type A	2,415.000 LF		.		.
0370	601.0600 Concrete Curb Pedestrian	617.000 LF		.		.
0380	602.0410 Concrete Sidewalk 5-Inch	3,650.000 SF		.		.
0390	602.0505 Curb Ramp Detectable Warning Field Yellow	220.000 SF		.		.
0400	611.0420 Reconstructing Manholes	3.000 EACH		.		.
0410	611.8110 Adjusting Manhole Covers	8.000 EACH		.		.
0420	611.8115 Adjusting Inlet Covers	3.000 EACH		.		.
0430	614.0800 Crash Cushions Permanent	1.000 EACH		.		.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0440	619.1000 Mobilization	1.000 EACH		.		.
0450	625.0100 Topsoil	915.000 SY		.		.
0460	628.1504 Silt Fence	525.000 LF		.		.
0470	628.1520 Silt Fence Maintenance	525.000 LF		.		.
0480	628.1905 Mobilizations Erosion Control	2.000 EACH		.		.
0490	628.1910 Mobilizations Emergency Erosion Control	2.000 EACH		.		.
0500	628.2008 Erosion Mat Urban Class I Type B	175.000 SY		.		.
0510	628.7005 Inlet Protection Type A	5.000 EACH		.		.
0520	628.7010 Inlet Protection Type B	2.000 EACH		.		.
0530	628.7015 Inlet Protection Type C	37.000 EACH		.		.
0540	628.7020 Inlet Protection Type D	5.000 EACH		.		.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0550	628.7504 Temporary Ditch Checks	60.000 LF		.		.
0560	628.7570 Rock Bags	75.000 EACH		.		.
0570	629.0210 Fertilizer Type B	0.580 CWT		.		.
0580	630.0130 Seeding Mixture No. 30	15.000 LB		.		.
0590	630.0200 Seeding Temporary	20.000 LB		.		.
0600	631.0300 Sod Water	16.700 MGAL		.		.
0610	631.1000 Sod Lawn	740.000 SY		.		.
0620	634.0618 Posts Wood 4x6-Inch X 18-FT	103.000 EACH		.		.
0630	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	4.000 EACH		.		.
0640	637.0620 Sign Flags Permanent Type II	4.000 EACH		.		.
0650	637.2210 Signs Type II Reflective H	673.400 SF		.		.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0660	637.2215 Signs Type II Reflective H Folding	89.520 SF		.		.
0670	637.2230 Signs Type II Reflective F	357.750 SF		.		.
0680	638.2102 Moving Signs Type II	2.000 EACH		.		.
0690	638.2602 Removing Signs Type II	104.000 EACH		.		.
0700	638.3000 Removing Small Sign Supports	68.000 EACH		.		.
0710	641.8100 Overhead Sign Support (structure) 01. S-51-236	LUMP	LUMP			.
0720	641.8100 Overhead Sign Support (structure) 02. S-51-237	LUMP	LUMP			.
0730	642.5201 Field Office Type C	1.000 EACH		.		.
0740	643.0100 Traffic Control (project) 01. 1320-19-60	1.000 EACH		.		.
0750	643.0410 Traffic Control Barricades Type II	170.000 DAY		.		.
0760	643.0420 Traffic Control Barricades Type III	3,360.000 DAY		.		.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0770	643.0705 Traffic Control Warning Lights Type A	2,460.000 DAY		.		.
0780	643.0715 Traffic Control Warning Lights Type C	6,720.000 DAY		.		.
0790	643.0800 Traffic Control Arrow Boards	250.000 DAY		.		.
0800	643.0900 Traffic Control Signs	12,700.000 DAY		.		.
0810	643.1050 Traffic Control Signs PCMS	28.000 DAY		.		.
0820	646.0106 Pavement Marking Epoxy 4-Inch	36,870.000 LF		.		.
0830	646.0126 Pavement Marking Epoxy 8-Inch	145.000 LF		.		.
0840	646.0600 Removing Pavement Markings	200.000 LF		.		.
0850	646.0841.S Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	4,900.000 LF		.		.
0860	646.0843.S Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	2,680.000 LF		.		.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0870	647.0456 Pavement Marking Curb Epoxy	285.000 LF		.		.
0880	647.0606 Pavement Marking Island Nose Epoxy	10.000 EACH		.		.
0890	647.0726 Pavement Marking Diagonal Epoxy 12-Inch	665.000 LF		.		.
0900	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	1,000.000 LF		.		.
0910	650.5500 Construction Staking Curb Gutter and Curb & Gutter	2,325.000 LF		.		.
0920	650.8000 Construction Staking Resurfacing Reference	10,000.000 LF		.		.
0930	650.8500 Construction Staking Electrical Installations (project) 01. 1320-19-60	LUMP	LUMP			.
0940	650.9910 Construction Staking Supplemental Control (project) 01. 1320-19-60	LUMP	LUMP			.
0950	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	99.000 LF		.		.
0960	652.0605 Conduit Special 2-Inch	371.000 LF		.		.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0970	652.0800 Conduit Loop Detector	3,728.000 LF		.		.
0980	653.0135 Pull Boxes Steel 24x36-Inch	6.000 EACH		.		.
0990	653.0140 Pull Boxes Steel 24x42-Inch	1.000 EACH		.		.
1000	653.0905 Removing Pull Boxes	1.000 EACH		.		.
1010	655.0230 Cable Traffic Signal 5-14 AWG	120.000 LF		.		.
1020	655.0700 Loop Detector Lead In Cable	9,595.000 LF		.		.
1030	655.0800 Loop Detector Wire	12,970.000 LF		.		.
1040	655.0900 Traffic Signal EVP Detector Cable	1,761.000 LF		.		.
1050	659.1125 Luminaires Utility LED C	9.000 EACH		.		.
1060	690.0150 Sawing Asphalt	2,500.000 LF		.		.
1070	690.0250 Sawing Concrete	10,100.000 LF		.		.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1080	SPV.0035 Special 01. CONCRETE MASONRY DECK PATCHING	3.000 CY		.		.
1090	SPV.0045 Special 01. GRABBER CONES	91,000.000 DAY		.		.
1100	SPV.0060 Special 01. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORD	24.000 EACH		.		.
1110	SPV.0060 Special 02. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2	16.000 EACH		.		.
1120	SPV.0060 Special 03. HYDRO EXCAVATION	3.000 EACH		.		.
1130	SPV.0060 Special 04. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC YIELD LINE SYMBOLS 18-INCH	24.000 EACH		.		.
1140	SPV.0060 Special 05. LAMP DISPOSAL HIGH INTENSITY DISCHARGE	9.000 EACH		.		.
1150	SPV.0060 Special 06. REMOVING LUMINAIRES	9.000 EACH		.		.
1160	SPV.0060 Special 07. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 1	2.000 EACH		.		.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1170	SPV.0060 Special 08. REMOVING CONCRETE COLLAR FOR DRIVEWAY CULVERT	2.000 EACH		.		.
1180	SPV.0060 Special 09. GRADING SLOPED ENDWALL AREA	2.000 EACH		.		.
1190	SPV.0060 Special 10. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 3	1.000 EACH		.		.
1200	SPV.0090 Special 01. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 18-INCH	445.000 LF		.		.
1210	SPV.0090 Special 02. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH	225.000 LF		.		.
1220	SPV.0090 Special 03. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH	1,425.000 LF		.		.
1230	SPV.0090 Special 04. BRIDGE JOINT ROUTE AND SEAL	136.000 LF		.		.
1240	SPV.0090 Special 05. SAWING PAVEMENT DECK PREPARATION AREAS	240.000 LF		.		.
1250	SPV.0090 Special 06. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH	3,130.000 LF		.		.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1260	SPV.0090 Special 07. PAVEMENT MARKING CONTRAST EPOXY 4-INCH	25.000 LF		.		.
1270	SPV.0105 Special 01. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 262+20 RIGHT	LUMP	LUMP			.
1280	SPV.0105 Special 02. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 262+20 LEFT	LUMP	LUMP			.
1290	SPV.0105 Special 03. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 263+25 RIGHT	LUMP	LUMP			.
1300	SPV.0105 Special 04. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 263+25 LEFT	LUMP	LUMP			.
1310	SPV.0105 Special 05. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 301+80 RIGHT EB	LUMP	LUMP			.
1320	SPV.0105 Special 06. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 301+80 RIGHT WB	LUMP	LUMP			.

CONTRACT: 20160510014 PROJECT(S): 1320-19-60 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1330	SPV.0105 Special 07. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 302+30 LEFT EB	LUMP	LUMP			.
1340	SPV.0105 Special 08. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 302+30 LEFT WB	LUMP	LUMP			.
1350	SPV.0105 Special 09. REMOVING OVERHEAD SIGN SUPPORT STH 11 EB At 86TH Street	LUMP	LUMP			.
1360	SPV.0105 Special 10. REMOVING OVERHEAD SIGN SUPPORT STH 11 WB At 86TH Street	LUMP	LUMP			.
1370	SPV.0105 Special 11. REMOVE LOOP DETECTOR WIRE & LEAD-IN STH 11 & 90TH STREET	LUMP	LUMP			.
1380	SPV.0105 Special 12. REMOVE LOOP DETECTOR WIRE & LEAD-IN CABLE STH 11 & OAKES ROAD	LUMP	LUMP			.
1390	SPV.0105 Special 13. EVP DETECTOR HEAD INSTALLATION STH 11 & 90TH STREET	LUMP	LUMP			.
1400	SPV.0105 Special 14. EVP DETECTOR HEAD INSTALLATION STH 11 & OAKES ROAD	LUMP	LUMP			.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

PLEASE ATTACH SCHEDULE OF ITEMS HERE