**HIGHWAY WORK PROPOSAL**

Proposal Number: Ø 8

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

| COUNTY | STATE PROJECT ID | FEDERAL PROJECT ID | PROJECT DESCRIPTION | HIGHWAY |
|---|---|---|---|---|
| Waukesha | 1370-15-71 | WISC 2017 266 | Oconomowoc - Waukesha, CTH P (Brown Street) - IH94 | STH 16 |

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, $ 350,000.00<br>Payable to: Wisconsin Department of Transportation | Attach Proposal Guaranty on back of this PAGE. |
| Bid Submittal Due<br>Date: May 9, 2017<br>Time (Local Time): 9:00 AM | Firm Name, Address, City, State, Zip Code<br>**SAMPLE**<br>**NOT FOR BIDDING PURPOSES** |
| Contract Completion Time<br>November 16, 2017 | |
| Assigned Disadvantaged Business Enterprise Goal<br>13 % | 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<br>Removing asphaltic surface milling, base patching concrete, base aggregate dense shoulders, diamond grinding, HMA pavement, concrete pavement, replacing beam guard, permanent signing, and pavement marking. | |
| Notice of Award Dated | Date Guaranty Returned |

# PLEASE ATTACH
# PROPOSAL GUARANTY HERE

**Effective with November 2007 Letting**

## PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

**Effective with August 2015 Letting**

# BID PREPARATION

## Preparing the Proposal Schedule of Items

### A General

(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<br>Wisconsin Department of Transportation |

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

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

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

(Signature of Authorized Contractor Representative) (Date)

**March 2010**

## LIST OF SUBCONTRACTORS

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

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

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

**DECEMBER 2000**

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Special Provisions

## Table of Contents

**SPECIAL PROVISIONS**

## 1. General.

Perform the work under this construction contract for Project 1370-15-71, Oconomowoc - Waukesha, CTH P(Brown Street) - IH-94, STH 16, Waukesha County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2017 Edition, as published by the department, and these special provisions.

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

## 2. Scope of Work.

The work under this contract shall consist of removing asphaltic surface milling, base patching concrete, base aggregate dense shoulders, HMA pavement, concrete pavement, replacing beam guard, pavement marking and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

## 3. Prosecution and Progress.

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

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

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

The completion date to complete STH 16 is based on the expedited work schedule and may require extraordinary forces and equipment.

When approved by the engineer construction work on entrance and exit ramps can be performed under traffic with 1 – 12' lane of traffic maintained on an existing paved surface. Traffic control drums, signs, and pavement markings are required to delineate and protect the work zone.

Entrance and Exit ramps required to be closed to complete the work can be closed one time for up to 21 calendar days. If the contractor fails to complete the work necessary to reopen the entrance or exit ramp within 21 calendar days from the date closed, the department will assess the contractor $7,000 in interim liquidated damages for each calendar day the ramp remains closed beyond 21 calendar days. An entire calendar day will be charged for any period of time within a calendar day the ramp remains closed beyond 12:01 AM.

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

Entrance and exit ramp closures at County C, County E, County KC, and County JJ are only allowed between June 20, 2017 and August 28, 2017. Close only the entrance ramp and the exit ramp at an interchange in one direction at a time. The entrance and exit ramps in the opposite direct shall remain open during that time. Do not close entrance and exit ramps at consecutive interchanges at the same time. When ramps are opened to traffic after a closure, traffic shall run on a 12' wide minimum surface of concrete patches, existing asphalt or concrete pavement, HMA pavement or a combination thereof.

No ramp closures or detours are allowed on CTH E, Hartbrook Drive, and CTH KC the last weekend (Friday 12:00 PM noon until Monday 5:00 AM) in June of 2017 during the Hartland Parade. All sidewalk and curb ramps at these locations shall be open for pedestrian traffic.

No work shall be performed between June 10, 2017 and June 19, 2017 (dates inclusive) due to the U.S. Open golf tournament at the Erin Hills Golf Course. All lanes (including shoulders) of STH 16 including entrance and exit ramps shall be entirely clear for traffic within the project limits including pavement marking, signs, and guardrail/end terminals shall be complete and maintained with existing or new installations during this period. Traffic shall run on concrete patches, existing asphalt or concrete pavement, lower level HMA pavement or a combination thereof.

Areas that require base patching asphaltic shall be completed prior to the asphaltic surface milling operation. There may be additional base patches to be completed after the asphaltic surface milling is complete as identified by the engineer.

Drop-offs greater than 6 inches within 4' of an open traffic lane shall be graded or paved to maintain a 3:1 maximum slope when there is no active work being performed.

Complete construction operations for the eastbound off ramp at WIS 190 to the stage necessary to reopen it to through traffic within 21 calendar days and prior to 12:01 AM August 18, 2017. Do not reopen until completing the following work: concrete pavement, asphalt and base aggregate shoulders, signing and pavement marking.

If the contractor fails to complete the work necessary to reopen the eastbound off ramp at WIS 190 to through traffic within 21 calendar days and prior to 12:01 AM August 18, 2017, the department will assess the contractor $7,000 in interim liquidated damages for each

calendar day that the roadway remains closed after 12:01 AM, August 18, 2017. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

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

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

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

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

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

## 4. Traffic.

The following traffic periods apply to this contract:

**STH 16 Eastbound**

**Weekday Off-Peak Hours**
12:00 AM (Midnight) – 5:00 AM and 9:00 AM – 12:00 AM (Midnight)
**Weekday Peak Hours**
5:00 AM - 9:00 AM

**Weekend Off-Peak Hours**
12:00 AM (Midnight) – 12:00 AM (Midnight)

**Weekend Peak Hours**
None

**Night Time Hours**
7:00 PM – 5:00 AM

**STH 16 Westbound**

**Weekday Off-Peak Hours**
12:00 AM (Midnight) - 2:00 PM and 7:00 PM – 12:00 AM (Midnight)

**Weekday Peak Hours**
2:00 PM - 7:00 PM

**Weekend Off-Peak Hours**
12:00 AM (Midnight) – 12:00 AM (Midnight)

**Weekend Peak Hours**
None

**Night Time Hours**
7:00 PM – 5:00 AM

All lanes (including shoulders) of STH 16 shall be entirely clear for traffic during Peak Hours and pavement marking shall be installed. A minimum of one lane (including shoulder) shall be entirely clear for traffic during Off-Peak Hours. Traffic shall run on concrete patches, existing asphalt or concrete pavement, lower level HMA pavement or a combination thereof.

At the end of each day, prior to opening the entire roadway to peak hour traffic, no drop-off shall exist between lanes and pavement marking shall be installed. In addition, no drop-off greater than 2 inches shall exist between the paved shoulder and base aggregate shoulder.

The work zone on either the eastbound or westbound lanes shall not be longer than one continuous 2 mile section.

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

Do not park or store equipment, vehicles or construction materials within 30-feet of the edge of any roadway carrying traffic during non-working hours except at locations and periods of time approved by the engineer.

Do not permit equipment or vehicles to directly cross the live traffic lanes of the freeway. Yield to all through traffic at all locations. Equip all contractor's vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light). Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders.

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

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

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

Include the following message on the Portable Changeable Message Boards, frame 1: "DAILY LANE CLOSURES ON WIS 16", frame 2: "EXPECT DELAYS". Alternate messages shall be approved by the engineer.

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

**TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION**

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

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

## 5. Lane Rental Fee Assessment.

### A General

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

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

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

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

### B Lane Rental Fee Assessment

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

- $8,000 per lane, per direction of travel, per hour broken into 15 minute increments

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

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

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

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

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

## 6. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 16 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, June 30, 2017 to 6:00 AM Wednesday, July 5, 2017 for Independence Day;
- From noon Friday, September 1, 2017 to 6:00 AM Tuesday, September 5, 2017 for Labor Day;
- From noon Friday, November 17, 2017 to 6:00 AM Monday, November 27, 2017 for deer hunting season and Thanksgiving;
- From noon Friday, December 22, 2017 to 6:00 AM Tuesday December 26, 2017 for Christmas;
- From noon Friday, December 29, 2017 to 6:00 AM Tuesday January 2, 2018 for New Year's Day;
- From noon Friday, May 25, 2018 to 6:00 AM Tuesday May 29, 2018 for Memorial Day.

stp-107-005 (20050502)

## 7. Environmental Protection.

*Supplement standard spec 107.18 as follows:*

The contractor shall not store materials, equipment or topsoil within 100' of any wetlands.

There are several apron end wall repair and culvert pipe liner locations that are within or adjacent to wetland areas. The contractor shall limit wetland disturbance to a 15'X15' area. No equipment other than hand operated equipment shall be used in the wetland or adjacent to wetland areas. Use silt fence to protect adjacent wetland areas from siltation and disturbance.

The culvert liner located at Station 786+00 that is in navigable waterways and within wetland areas. The contractor shall install the culvert liner at low stream flow. The contractor shall limit waterway and wetland disturbance to a 25'X25' area. No equipment other than hand operated equipment shall be used within the waterway or wetland. The contractor will be allowed to isolate the work area by bypass pumping the stream for one day for culvert cleaning. Clean debris from the culvert and streambed before allowing normal stream flow. The contractor will be allowed to isolate the work area by bypass pumping the stream for up

to three days for grouting the pipe liner. Do not perform bypass pumping over the weekend or during large rain events.

## 8. Erosion Control.

*Supplement standard spec 107.20 with the following:*

Re-topsoil of graded areas, as designated by the engineer, immediately after grading is completed within those areas. Seed, fertilize, and mulch/erosion mat topsoiled 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.

Disturbed areas at the culvert repairs and culvert liners shall restored with seed and erosion mat within five days of being disturbed.

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.

*Replace standard spec 107.20(3) with the following:*

> 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 (*insert DNR liaison contact information here*). 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.

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

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting Doug Cain at (262) 548-5603.
stp-107-054 (20080901)

## 10. Construction Over or Adjacent to Navigable Waters.

*Add the following to standard spec 107.19:*

The Bark River, Un-named Tributaries to Pewaukee Lake, Pewaukee River, and Coco Creek are classified as a navigable waterway.
stp-107-060 (20150630)

## 11. Contractor's Use of the Highway Right-of-Way in Sensitive Work Zones.

*Supplement standard spec 107.9 with the following:*

Areas of potential environmental, archeological, or historic significance have been identified along the project corridor outside of the existing roadway shoulder points.

Areas outside the existing roadway shoulder points in the sensitive work zones listed below may not to be used for parking, for the staging of personnel, equipment and/or supplies, for borrow or waste disposal, or for any other purpose that has the potential to impact the sensitive work zone.

If there is any ground disturbance beyond the existing roadway shoulder points in any of the sensitive work zones, or below subgrade a qualified archaeologist must monitor the construction-related ground-disturbing activities. To ensure availability of the archaeologist contact (Bureau of Technical Services' Cultural Resources) Lynn Cloud, (608) 266-0099, two weeks before any ground disturbance outside of the shoulder points or below subgrade in any of the sensitive work zones.

If human bone is discovered during construction stop work immediately, notify the engineer and the Regional Environmental Coordinator, and follow requirements according to standard spec 107.

Sensitive work zones are described below. Exact limits will be marked in the field by the department.

**STH 16 CTH P - STH 190**
Restriction of approximately 1,900-feet along westbound and eastbound lanes between CTH KC Interchange and Jungbluth Road (JK)/North Shore Drive (KE) Interchange.

**STH 16 STH 190 - IH 94**
Restriction of approximately 13,570-feet (2.6 miles) along westbound and eastbound lanes between STH 190 Interchange and IH 94 Interchange (entire right-of-way).

Restriction of 1,000-feet for westbound and eastbound lanes at the Main Street/CTH JJ Interchange, including 1,000-feet restriction to end of west bound ramp originating at Main Street/CTH JJ.

## 12. Other Contracts.

The following project may be under construction concurrently with the work under this contract. Coordinate activities, detours, work zone traffic control, roadway and lane closures, and other work items as required with other contracts.

**Project 1370-15-72.** Oconomowoc to Waukesha, CTH P to CTH C / STH 190 to IH-94 split, STH 16, Waukesha, Wisconsin. Work under this contract is anticipated to be LET in the 2017 construction season with an anticipated start work date in 2018. Work areas under 1370-15-72 fall within the limits of work under this contract. Coordinate activities in these areas with the 1370-15-72 contractor.

## 13. Railroad Insurance and Coordination.

**A Description**
Comply with standard spec 107.17 for all work affecting Soo Line Railroad Company d/b/a Canadian Pacific 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 Soo Line Railroad Company d/b/a Canadian Pacific.

Notify evidence of the required coverage, and duration to Jim Krieger at (612) 330-4555 at Canadian Pacific, Suite 900,120 South Sixth Street, Minneapolis, MN. 55402. Include the following information on the insurance document:

Project 1370-15-71
Route Name STH 16, Waukesha County
Crossing ID 390 529U
Railroad Subdivision Watertown
Railroad Milepost MP 104.88

**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 **For Projects in Douglas County:**

Contact Jim Krieger, Manager Public Works, Canadian Pacific Plaza, 120 South 6th Street, Suite 900, Minneapolis, MN 55402; TELEPHONE (612) 330-4555; email jim_krieger@cpr.ca, for consultation on railroad requirements during construction

* Contact CP(SOO) prior to letting for flagman work hour availability.

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 2 passenger trains and 24-26 through freight trains operate daily through the construction site. Passenger trains operate at up to 79 mph. Through freight trains operate at up to 60 mph. In addition to through movements there are switching movements at slower speeds.

100-005 (20161130)

## 14. Temporary Regulatory Speed Limit Reduction.

**A Description**

This special provision describes providing, installing, maintaining, removing, covering and uncovering speed limit signs at locations the plans show or the engineer directs.

**B Materials**

Furnish temporary speed limit signs and portable sign supports that meet the "crashworthy" definition and height criteria in the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) or the Manual for Assessing Safety Hardware (MASH).

**C Construction**

**C.1** When speed limit is not in use, cover the sign(s) so that no portion of the sign text is visible to on-coming traffic.

When construction activities impede the location of a post mounted regulatory speed limit sign, mount the regulatory speed limit sign on a portable sign support.

At all other times the posted regulatory speed limit shall be the existing 70 or 65 mph speed limit.

**C.2** During periods when traffic conditions do not require a Temporary Regulatory Speed Reduction, speed limit signs should be changed back to the permanent regulatory speed limit. This may require changing posted speed limit signs more than twice a day.

**C.3** During approved temporary regulatory speed limit reductions, install regulatory speed limit signs on the inside and outside shoulders of the roadway to enhance visibility. Locate the sign at the beginning of the reduced regulatory speed zone, after all locations where traffic may enter the highway segment, and every ½ mile within the reduced regulatory speed zone. Install signs at the end of the temporary regulatory speed zone to designate the end of the temporary regulatory speed zone and inform drivers the posted regulatory speed limit reverts back to 70 or 65 mph. To ensure appropriate speed enforcement and increase sign visibility to drivers, add 16" X 16" orange flag to the sign.

**C.4** Coordinate with Regional construction field staff to notify the Southeast Region Traffic Section with field location(s) of the temporary regulatory speed zone. Contact Rebecca Klein at (262) 548-8728 of the Southeast Region Traffic Section at least 14 calendar days prior to installation of the temporary regulatory speed zone. After notification Southeast Region Traffic will create a "Temporary Speed Zone Declaration" to meet statutory requirements, allowing enforcement of this temporary regulatory speed limit.

**D (Vacant)**

**E Payment**
Changing signs between temporary and regulatory speed limits is incidental to the bid item 643.0100 Traffic Control.

## 15. Pavement Markings.

Apply temporary lane line pavement markings (reflective paint) to the lower layer of asphalt pavement the same day the layer is placed and before opening to peak hour traffic.

Apply temporary lane line pavement markings (removable tape) to the upper layer of asphalt pavement the same day the layer is placed and before opening to peak hour traffic.

Apply temporary edge line markings to the lower layer of asphalt pavement within five days of when the layer is placed.

Apply permanent lane line pavement markings (grooved wet reflective contrast tape) to the upper layer of asphalt pavement no earlier than five days of when the layer is placed.

Apply permanent edge line pavement markings (epoxy paint) to the upper layer of asphalt pavement within five days of when the layer is placed.

## 16. Removing and Installing Guardrail and Energy Absorbing Terminals.

This work shall be according to the pertinent requirements of standard spec 204 and standard spec 614 and as hereinafter provided.

Remove and install guardrail in one continuous operation. Upon completion of removing guardrail, placement of the steel plate beam guard and energy absorbing terminals shall be completed within 72 hours. Work shall be completed at each location prior to starting work at a new location. Additional traffic control such as drums and barricades shall be used to delineate the hazard.

## 17. Utilities.

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

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 utilities that have facilities in the area as required per statutes. Use caution to ensure 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.

Additional detailed information regarding the location of vacated, relocated, and/or removed utility facilities is available in the work plan provided by each utility company or on the permits issued to them. View these documents at the region WisDOT office during normal working hours.

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Provide this notice 14 to 16 calendar days in advance of when the prior work will be completed and the site will be available to the utility owner. Follow-up with a confirmation notice to the engineer and the utility owner not less than three working days before the site will be ready for the utility owner to begin its work.

**ATC.** ATC has overhead electric facilities within the project limits. ATC reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Crossing at Station 450+90.

Maintain OSHA Safe working Clearance to the 138kV conductors at all times based on latest OSHA requirements.

The field contact is Mike Olsen; P.O Box 47, Waukesha, WI 53187; (920) 338-6582; mobile (920) 660-2390; e-mail molsen@atcllc.com.

**AT&T Wisconsin.** AT&T Wisconsin has underground facilities within the project limits. AT&T Wisconsin reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Crossing at Station 78+50.
- Crossing at Station 124+50.
- Crossing at Station 150+00.
- Crossing at Station 192+25.
- Crossing at Station 207+10.
- Crossing at Station 261+30.
- Crossing at Station 392+00.
- Crossing at Station 609+32.
- Crossing at Station 609+65.
- Crossing at Station 684+50.
- Crossing at Station 704+50.
- Along STH 16 from Station 704+50 to 729+00.
- Crossing at Station 740+00.

The field contact is Alper Kolcu; 2005 Pewaukee Road, Waukesha, WI 53188, (262) 970 8494; mobile (262) 352-3791; e-mail: AK308X@att.com.

**Charter Communications** (f/k/a Time Warner Cable). Charter Communications has underground facilities within the project limits. Charter reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Crossing At Station 144+00
- Crossing AT Station 261+40

The field contact is Steve Cramer; 1320 N. Martin Luther King Jr. Dr. Milwaukee, WI 53212; (414) 277-4045; mobile (414) 688-2385; email steve.cramer@charter.com.

**City of Oconomowoc.** City of Oconomowoc has facilities within the project limits. City of Oconomowoc reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Underground Electric Crossing at Station 80+10.

The field contact is Scott Osborn; 808 S. Worthington St, Oconomowoc, WI 53036; (262) 569-6421; email sosborn@oconomowoc-wi.gov.

**City of Pewaukee DPW.** The city of Pewaukee has underground facilities within the project limits. Pewaukee reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Crossing at Station 739+00 (12" water main)

The field contact is Jane Mueller; W240 N3065 Pewaukee Rd, Pewaukee, WI 53072; Phone (262) 691-0804; Fax (262) 691-1798; email: jem@pewaukee.wi.us.

**Lake Pewaukee Sanitary District:** Lake Pewaukee Sanitary Districts has facilities within the project limits. Lake Pewaukee reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- 24" RCP Crossing at Station 739+95

The field contact is Thomas Koepp; P.O. Box 111, Pewaukee, WI 53072; (262) 691-4485, (414) 333-9603; email thkoepp@wi.rr.com.

**Midwest Fiber Networks.** Midwest Fiber Networks has facilities within the project limits. Midwest reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Crossing at Station 704+50.

The field contact is Mr. Richard Trgovec; 6070 North Flint Road, Glendale, WI 53209; phone (414) 459-3554; email: rtrgovec@midwestfibernetworks.com.

**TDS Metrocom:** The TDS Metrocom has facilities within the project limits. TDS Metrocom reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Crossing at Station 705+00

The field contact is Matthew Schulte; 16924 West Victor Road, New Berlin, WI 53151; (262) 754-3063; mobile (262) 409-1177; email matt.schulte@tdstelecom.com.

**Village of Hartland DPW.** The Village of Hartland has underground facilities within the project limits. Hartland reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Crossing at Station 345+30 (12" water main).
- Crossing at Station 391+50 (8" sanitary sewer).
- Crossing at Station 391+90 (12" water main).
- Crossing at Station 397+40 (21" sanitary sewer).
- Crossing at Station 425+00 (12" water main).

Contractor to work around the above listed crossings.

The field contact is Michael Einweck; 210 Cottonwood Ave, Hartland, WI 53029; phone (262) 367-4880; Fax (262) 367-2430; email mikee@villageofhartland.com.

**Village of Pewaukee Sewer.** The Village of Pewaukee has underground facilities within the project limits. Pewaukee reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Crossing at Station 693+80 (24" sanitary sewer).
- Crossing at Station 701+75 (48" sanitary sewer).
- Crossing at Station 704+90 (8" sanitary sewer).
- Crossing at Station 725+00 (21" sanitary sewer).

The field contact is Daniel Naze; 1000 Hickory Street, Pewaukee, WI 53072; (262) 691-5694; email dnaze@villageofpewaukee.com.

**Village of Pewaukee Water.** The Village of Pewaukee has underground facilities within the project limits. Pewaukee reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Crossing at Station 692+50 (12" water main).
- Crossing at Station 693+90 (6" water main).
- Crossing at Station 704+75 (12" water main).

The field contact is Daniel Naze; 1000 Hickory Street, Pewaukee, WI 53072; (262) 691-5694; email dnaze@villageofpewaukee.com.

**WE Energies (Electric).** WE Energies (Electric) has overhead and underground electric facilities within the project limits. WE Energies (Electric) reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Overhead crossing at Station 98+00.
- Overhead crossing at Station 123+50.
- Overhead crossing at Station 153+00.
- Overhead crossing at Station 193+00.
- Overhead crossing at Station 206+75.
- Crossing at Station 233+50.
- Overhead crossing at Station 260+50.
- Overhead crossing at Station 289+00.
- Crossing at Station 315+00.
- Crossing at Station 343+00.
- Crossing at Station 391+30.
- Overhead crossing at Station 422+75.
- Overhead crossing at Station 549+50.

- Crossing at Station 694+00.
- Overhead crossing at Station 704+30.
- Overhead crossing at Station 714+25.

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

We Energies Electric Dispatch #1-800-662-4797
We Energies Gas Dispatch #1-800-261-5325

We Energies has indicated that discontinued facilities are not known to contain any hazardous materials. Once the line has been verified by We Energies to be dead per the above paragraph, it is the responsibility of the road contractor to remove and dispose of all sections of the discontinued facility necessary for them to continue with the project.

The field contact is Bryan Stoehr, 500 S 116th St, West Allis, WI 53214, Phone: (414) 944-5516, Mobile: (414) 416-6059, email: bryan.stoehr@we-energies.com

**WE Energies (Gas).** WE Energies (Gas) has underground gas facilities within the project limits. WE Energies (Gas) reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Crossing at Station 70+50.
- Crossing at Station 98+00.
- Crossing at Station 143+40
- Crossing at Station 192+30.
- Crossing at Station 207+00.
- Crossing at Station 314+90.
- Crossing at Station 392+50.
- Crossing at Station 425+25.
- Crossing at Station 480+10.
- Crossing at Station 659+00.
- Crossing at Station 685+25.
- Crossing at Station 695+50.
- Crossing at Station 704+50.
- Crossing at Station 737+50.

We Energies Gas requested a watch dog be on site if excavating within 5' of their facilities at the following locations:

- CTH JJ – 8" main crossing at Station 737+50, use caution when installing breaker on eastbound on-ramp and westbound off-ramp.
- STH 190 – 10" main crossing between 684+00 and 685+00, adjust ramp closure gate to miss the 10" main, use caution when installing breaker on the eastbound off-ramp and westbound on-ramp.
- CTH KE – adjust ramp closure gate to avoid existing 6" steel main (main was located approximately 130' wcl according to our records and should be field verified).
- CTH KC – adjust beam guard spacing and ramp closure gate to avoid existing 6" gas main, use caution when installing breaker on the westbound off-ramp.
- CTH P – adjust beam guard spacing to avoid existing 6" gas main, gas main not shown in plans (main located approximately 75' WW of the bridge and must be verified in the field).

Contact five working days prior to work near facilities to schedule a watch dog.

It is imperative that the highway contractor contact We Energies before removing any gas facilities or electrical underground cables to verify that they have been discontinued and carry no natural gas or electrical current. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut or drill an unmarked facility without explicit consent from We Energies. 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

We Energies has indicated that discontinued facilities are not known to contain any hazardous materials. Once the line has been verified by We Energies to be dead per the above paragraph, it is the responsibility of the road contractor to remove and dispose of all sections of the discontinued facility necessary for them to continue with the project.

The field contact is Nikhil Agarwal, S13 w 33800 STH 18, Delafield, WI 53018; Phone (414) 944-5690; Mobile (414) 840-0476; email Nikhil.Agarwal@we-energies.com.

**WisDOT Signals.** WisDOT Signals has their existing facilities within the project area as follow:

- STH 83 westbound off ramp and eastbound off ramp.
- STH 190 westbound off ramp and eastbound off ramp.
- CTH JJ westbound off ramp and westbound off ramp.

WisDOT Signals has work to be completed as part of this project at the following locations:

- CTH JJ westbound off-ramp
- STH 83 eastbound off-ramp

The field contact is Matthew Cowap; 141 NW Barstow St, Waukesha, WI 53187; (262) 521-4404; email matthew.cowap@dot.wi.gov.

**WisDOT STOC.** WisDOT STOC has traffic counters within the project limits. WisDOT STOC reviewed the proposed plan and concluded there will be no conflicts with their existing facilities as follows:

- Station 731+45, eastbound and westbound STH 16.
- Station 772+25, eastbound and westbound STH 16.

The field contact is John Mittelstadt; 433 W. St. Paul Ave., STE 300, Milwaukee, WI 53203; (608) 205-7859; email John.Mittelstadt@dot.wi.gov.

## 18. Weekly Meetings with Project Personnel.

Schedule weekly meetings with project personnel for the life of the project. The purpose of these meetings is to plan upcoming work including lane and ramp closures and traffic switches on STH 16. This information will be distributed by the Wisconsin DOT personnel to all the local emergency and police agencies and to all local media. The meetings shall include the contractor, subcontractors, Wisconsin DOT project personnel, local officials, Wisconsin traffic operations, and public information personnel, and Waukesha County Sheriff personnel.

Provide, at the meetings, a weekly schedule of operations for all anticipated work consisting of the type of work scheduled, plus lane and ramp closures for the upcoming week beginning on Sunday 12:01 AM and ending on Saturday 12:00 PM. This information will be reviewed by Wisconsin DOT personnel. Modifications to this schedule will be accepted up to no later than noon on Thursdays. The final weekly schedule information will be provided to the local media on each Friday at 9:00 AM by Wisconsin DOT public information personnel.

## 19. Blue Specific Service Signs.

*Add the following to standard spec 638.3.4:*

Do not remove or move blue specific service signs or their associated posts. Specific service signs are signs with logos that identify commercial entities providing gas, food, lodging, camping, or attractions. A separate contractor, Interstate Logos - Wisconsin, is responsible for these signs. Contact Interstate Logos - Wisconsin at (844) 496-9163 a minimum of 14 calendar days in advance to coordinate removing, moving, or re-installation of these signs.

The contractor is responsible for damage done to these signs due to contractor operations. stp-638-010 (20150630)

## 20. Intelligent Transportation Systems (ITS) Control of Materials.

**Standard spec 106.2 – Supply Source and Quality**
Is modified by the addition of the following:

A portion of equipment to be installed by the contractor will be furnished by the department. This state-furnished equipment includes the following:

**Department-furnished Items**
Microwave Detector Assembly
Microwave Detector Modules

Pick-up all department-furnished equipment from the Statewide Traffic Operations Center (STOC) at 433 West Saint Paul Ave. Milwaukee, WI 53203 at a mutually agreed upon time. Contact Kurt Wilm at (414) 940-5570 to coordinate pick-up of equipment. Transportation of the equipment between the STOC and the field or interim location(s) shall be the responsibility of the contractor.

**Standard spec 106.3 – Approval of Materials**
Is modified by the addition of the following:

**Design/Shop Drawings**
Prior to the purchase and/or fabrication of any of the components listed herein, and for any non-catalog item shown on the Material and Equipment List specified above, and no more than 30 days after notice to proceed, submit five copies of design drawings and shop drawings, as required, to the department for review. The items and the drawings that represent them, shall meet the requirements of the standard specifications.

Design drawing submissions shall consist of signed and certified designs, design drawings, calculations, and material specifications for required items.

Shop drawings will be required for, but not limited to, the following:

- Hardware for mounting microwave detectors to Microwave Detector Poles.

The department will complete its review of the material within 30 days from the date of receipt of the submission, unless otherwise specified. The department will advise the contractor, in writing, as to the acceptability of the material submitted. The department may determine that if no exceptions were taken for the item, it is approved, and no further action is required by the contractor; or the item may be partially or totally rejected, in which case modify and/or amend the submittal as required by the department and resubmit the item within 14 days. At this time, the review and approval cycle described above will begin again.

**Approval by Testing, General**

All equipment and material furnished by the contractor will be subject to monitoring and testing to determine conformance with all the applicable requirements specified herein and to ensure proper operation of the ITS components and assemblies. Furnish documentation, as required, to demonstrate component performance and operation in conformance with the standard specifications, supplemental specifications, and these special provisions. Supply required testing equipment. No separate payment will be made for the monitoring, testing, test equipment, and documentation of test results. This shall be included in the amount bid for other pay items.

Rejected equipment or material may be offered again by the contractor for consideration provided all non-compliance has been corrected and pre-tested by the contractor.

The times and dates of the tests will be approved by the engineer. Conduct all tests in the presence of the engineer or his designated representative. Testing shall only take place on weekdays, which are official business days of the state, and during normal working hours of the state.

The test procedures shall, at a minimum, contain the testing methodology, test environment, and expected test results for functional operation and electrical/power performance. The test procedure shall include a 30-day field operational test. The contractor is responsible for a properly functioning subsystem for 30 consecutive days. If a system failure occurs at any portion of the 30-day test, schedule a retest. Any testing or retesting periods are incidental to individual pay items.

Sixty days prior to the testing of a local unit or subsystem, submit, for review and acceptance, five copies of a test procedure. Develop and document a test procedure, including proposed forms to be used during the testing procedure, which, when conducted, will demonstrate whether or not all hardware, cable, and connections furnished and installed by the contractor operates properly, and whether or not all functions are in conformance with the standard specifications and these special provisions.

The department will complete its review of the test procedure within 30 days from the date of receipt of the submission. The department will advise the contractor, in writing, as to the acceptability of the test procedure. The department may determine that the test is acceptable, in which case no changes are required and each unit will be tested according to the procedure; or the procedure may be partially or totally rejected, in which case modify the procedure and resubmit within 15 days. At this time, the review and approval cycle described above will begin again. It is not necessary to submit test procedures for all key items at the same time.

The following local subsystems are subject to a 30-day field operational test:

- Microwave Detector Assemblies

The department, with 10 days' notice, may postpone any scheduled testing for seven days, without incurring an excusable project delay.

## 21. QMP Base Aggregate.

### A Description

### A.1 General

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

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

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

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

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

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

### A.2 Small Quantities

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

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

#### A.2.1 Quality Control Plan

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

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

### A.2.2 Contractor Testing

1.

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

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

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

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

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

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

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

3. Until a four point running average is established, individual placement tests will be used for acceptance. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
4. Material represented by a sublot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

### A.2.3 Department Testing

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

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

## B Materials

### B.1 Quality Control Plan

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

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

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

### B.2 Personnel

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

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

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

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

### B.3 Laboratory

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

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

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

## B.4 Quality Control Documentation

### B.4.1 General

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

### B.4.2 Records

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

### B.4.3 Control Charts

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

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

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

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

## B.5 Contractor Testing

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

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

(3) Test gradation once per 3000 tons of material placed or fraction thereof. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples or lift thickness of 3-inch or less from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only

material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.

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

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

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

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

## B.6 Test Methods

### B.6.1 Gradation

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

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

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

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

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

### B.6.2 Fracture

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

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

### B.6.3 Liquid Limit and Plasticity

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

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

## B.7 Corrective Action

### B.7.1 General

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

### B.7.2 Placement Corrective Action

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

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

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

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

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

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to

determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:

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

## B.8 Department Testing

### B.8.1 General

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

### B.8.2 Verification Testing

#### B.8.2.1 General

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

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

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

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

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

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

### B.8.3 Independent Assurance

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

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

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

### B.9 Dispute Resolution

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

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

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

### C (Vacant)

### D (Vacant)

**E Payment**

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

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

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## 22. HMA Pavement Percent Within Limits QMP.

**A Description**

This special provision describes the data collection, statistical analysis, and procedure used for determination of pay adjustments for HMA pavement using Percent Within Limits (PWL) specification methodology. Pay adjustments will be made for the properties of air voids and density.

This special provision describes PWL pay determination, providing and maintaining a contractor Quality Control Program, department Quality Verification Program, required sampling and testing, dispute resolution, corrective action, pavement density, and payment for HMA pavements. Pay is determined by statistical analysis performed on contractor and department results conducted according to the Quality Control Program and Quality Verification Program as specified in standard spec 460 and modified here within.

The Quality Management Program (QMP) detailed in standard spec 460.2.8 is supplemented by this article.

**B Materials**

Conform to the requirements of standard spec 450, 455, and 460 except where superseded by this special provision. The department will allow only one mix design for each type of mix required for the project unless approved by the engineer. The use of more than one mix design for each HMA pavement layer will require the contractor to construct a new test strip.

*Replace standard spec 460.2.8.2.1.3.1 for contracts with 5000 Tons of Mixture or Greater with the following Contracts under Percent Within Limits to require a 3-way split, modify retained sample procedure, add ignition oven for AC determination for information, and modify lot and sublot sizes:*

### 460.2.8.2.1.3.1 Contracts under Percent within Limits

(1) Furnish and maintain a laboratory at the plant site fully equipped for performing contractor QC testing. Have the laboratory on-site and operational before beginning mixture production.

(2) Obtain random samples and perform tests according to Appendix A Test Methods & Sampling for PWL QMP HMA Pavements. Obtain HMA mixture samples from trucks at the plant. The QV-split acts as the QC sample for a sublot where a QV sample is taken. For the sublot in which a QV sample is collected, the QC sample shall be discarded, and the QC team shall test the QV-split in its place.

(3) The department will retain the split portion(s) of the contractor HMA mixture and blended aggregate samples. The department will take possession of retained samples collected to date each day QV samples are collected. Samples shall be labeled according to Appendix A. Additional handling instructions for retained samples are found in CMM 8-36.

(4) Use the test methods identified below, or other methods the engineer approves, to perform the following tests at a frequency greater than or equal to that indicated:

- Blended aggregate gradations:
- Field extraction by CMM 8-36 WisDOT Test Method or ignition oven according to AASHTO T 308.
- Asphalt content (AC) in percent
- AC by calculation.
- AC by nuclear gauge reading, optional.
- AC by inventory, optional.
- AC by ignition oven according to AASHTO T 308 (required, but informational only)
- Bulk specific gravity of the compacted mixture according to AASHTO T166.
- Maximum specific gravity according to AASHTO T209.
- Air voids ($V_a$) by calculation according to AASHTO T269.
- VMA by calculation according to AASHTO R35.

(5) Test each design mixture at a frequency of 1 test per 750 tons of mixture produced and placed on the project. Add a random sample for any fraction of 750 tons at the end of a project. Lot size shall consist of 3750 tons with sublots of 750 tons. Partial lots with less than three sublot tests shall be included into the previous lot. Lots for PWL Air voids may include areas other than the main travel lane which may include shoulders, bypass/turn lanes, etc. as specified in the plan. Lot sizes for PWL Density and PWL Air Voids will not match in size.

(6) Also conduct field tensile strength ratio tests according to ASTM D4867 on all mixtures requiring an antistripping additive. Test each full 50,000 ton production increment, or fraction of an increment, after the first 5000 tons of production. Perform required increment testing in the first week of production of that increment. If field tensile strength ratio values are either below the spec limit or less than the mixture design JMF percentage value by 20 or more, notify the engineer. The engineer and contractor will jointly determine a corrective action.

*Delete standard spec 460.2.8.2.1.5 and 460.2.8.2.1.6*

*Replace standard spec 460.2.8.2.1.7 Corrective Action with the following to add stop criteria and individual test tolerances:*

**460.2.8.2.1.7 Corrective Action**

(1) Material must conform to the following action limits based on individual QC and QV test results (tolerances relative to JMF):

| ITEM | ACTION LIMITS | CONFORMANCE LIMITS |
|---|---|---|
| Percent passing given sieve: | | |
| 37.5-mm | +/- 8.0 | |
| 25.0-mm | +/- 8.0 | |
| 19.0-mm | +/- 7.5 | |
| 12.5-mm | +/- 7.5 | |
| 9.5-mm | +/- 7.5 | |
| 2.36-mm | +/- 7.0 | |
| 75-µm | +/- 3.0 | |
| Asphaltic content in percent | - 0.5 | |
| Air Voids | | - 1.0 and +2.0 |
| VMA in percent[1] | - 0.5 | -1.0 |

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

(2) QV test results will be determined for air voids, VMA, Gmm, and Gmb, and AC Content.

(3) If any individual test results fall outside the action limits, notify the engineer, investigate the cause, and take corrective action to return to within limits. If two consecutive test results fall outside the action limits, stop production. Production may not resume until approved by the engineer. An additional QV sample may be collected upon resuming production, at the discretion of the engineer. Any additional QV tests must meet the tolerances of the action limits or be subject to additional stoppage and/or remove and replace.

(4) For any additional tests outside the random number testing conducted for density or volumetrics, the data collected will not be entered into PWL calculations. However, additional QV testing shall meet the tolerances for material acceptance as specified in the Standard Specification and this document. If additional density data identifies nonconforming material, proceed according to CMM 8-15.11.

(5) Remove and replace nonconforming material at no additional expense to the department. The engineer may allow nonconforming material to remain in place. The department will pay for the nonconforming HMA Pavement that remains in place at 50 percent of the contract price. Nonconforming material is defined as individual QC or QV tests resulting in material outside of the conformance limits or a PWL value < 50.

*Delete standard spec 460.2.8.2.2*

*Replace standard spec 460.2.8.3.1.2 with the following:*

(1) The department will provide at least one HTCP-certified HMA technician, certified at a level appropriate for sampling and mixture production control testing, to observe QV sampling of project mixtures.

(2) Under departmental observation, a contractor HMA technician certified at a level appropriate for sampling and mixture production control testing will collect and split samples.

(3) For QV testing, a department HMA technician certified at a level appropriate for sampling and mixture production control testing will ensure that all sampling is performed correctly and conduct testing, analyze test results, and post resulting data.

(4) The department will make an organizational chart available at the testing laboratory and to the contractor before mixture production begins. The department's chart will include names, telephone numbers, and current certifications of all QV testing personnel. The department will update the chart with appropriate changes, as they become effective.

*Replace standard spec 460.2.8.3.1.4 with the following to require and explain 3-way split testing, add ignition oven for QV tests, and define QV frequency.*

(1) HTCP-certified department personnel will obtain random samples by directly supervising HTCP-certified contractor personnel sampling from trucks at the plant. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which accommodate a three-way split for all random sampling per sublot. All QC samples shall provide the following: QC, QC-split, and QC-retained. All QV samples shall provide the following: QV, QV-split, and QV-retained. The contractor shall take possession and test the QC and QV-split portions. The engineer will observe the splitting and take possession of the samples intended for QV testing (i.e., QV and QC-split) and the retained portions. Additional sampling details are found in Appendix A.

(2) The department will verify product quality using the test methods enumerated here in 460.2.8.3.1.4(2), other engineer-approved methods, or other methods the industry and department HMA technical team recognizes. The department will identify test methods before construction starts and use only those methods during production of that material unless the engineer and contractor mutually agree otherwise.

(3) The department will perform all testing conforming to the following standards:

- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T166.
- Maximum specific gravity (Gmm) according to AASHTO T209.
- Air voids (Va) by calculation according to AASHTO T269.
- VMA by calculation according to AASHTO R35.
- AC by ignition oven according to AASHTO T 308 (required, but informational only)

(4) The department will randomly test each design mixture at the minimum frequency of one test for each lot (Normal lot size is 3750 tons).

*Delete standard spec 460.2.8.3.1.6*

*Replace standard spec 460.2.8.3.1.7 Dispute Resolution with the following Data Acceptance for Volumetrics to define statistical analysis and dispute resolution process:*

**460.2.8.3.1.7 Data Acceptance for Volumetrics**

(1) Acceptance of test data for pay determination will be contingent upon test results from both the contractor (QC) and the department (QV). Statistical analysis will be conducted on maximum specific gravity (Gmm) and bulk specific gravity (Gmb) data. The analysis determines the appropriate Gmm and Gmb to be used to calculate air voids. If either Gmm or Gmb result in non-comparable data as described in 460.2.8.3.1.7(2), the subsequent testing will be performed for both parameters.

(2) The engineer, upon completion of the lot, will compare the variances (F-test) and the means (t-test) of the verification test results with the quality control test results. If the F- and t-tests report comparable, the QC and QV data sets are determined to be statistically similar and QC data will be used to calculate air voids which in turn are used for PWL and pay adjustment calculations. If the F- and t-tests result in non-comparable data, proceed to the *dispute resolution* steps found below. Dispute resolution via further investigation is as follows:

[1] The QV-retained portion of the split from the most recent lot in the analysis window (specifically the sublot which triggered the warning that variances or means do not compare) shall be referee tested by the bureau's AASHTO accredited laboratory and certified personnel. This referee test result will replace the QV data of the sublot.

[2] A secondary statistical analysis shall be conducted inclusive of the referee test result. If The F- and t-tests now indicate that variances and means compare, no further testing is needed for the lot as QC data is determined to be appropriate to carry forward into subsequent calculations.

[3] If, however, the secondary statistical analysis inclusive of the referee test result yields an F- or t-test indicating non-comparable variances or means, the QC-splits will be tested by the department’s regional lab for the remaining 4 sublots of the lot which generated the warning. This data shall be used with the initial referee test result in subsequent calculations.

[4] The contractor may choose to *dispute* the QC-split data collected on a lot basis. In this event, the QC-retained portion of each sublot shall be referee tested by the bureau's AASHTO accredited laboratory and certified personnel and the referee test results will supersede the regional results for the disputed lot. Dispute resolution testing shall include both Gmm and Gmb, i.e., not solely the individual parameter causing the warning.

[5] If the referee testing results in an increased calculated pay factor, the department will absorb the cost of the additional referee testing.

[6] If the additional referee testing of a disputed lot results in a lower calculated pay factor, the contractor pays for the additional referee testing.

[7] The cost of referee testing is $2000/lot.

(3) The department will notify the contractor of the referee test results within 3 working days after receipt of the samples by the bureau's AASHTO accredited laboratory. The intent is to provide referee test results within approximately 7 calendar days from completion of the lot.

(4) The department will determine mixture conformance and acceptability by analyzing referee test results, reviewing mixture project data, and inspecting the completed pavement all according to Standard Spec, this document, and accompanying Appendices.

(5) Nonconforming mix (i.e., resulting in a PWL value less than 50 or not meeting the requirements of 460.2.8.2.1.7 as modified here within) may be subject to remove and replace, at the discretion of the engineer. Replacement may be conducted on a sublot basis. If an entire PWL sublot is removed and replaced, the test results of the newly placed material shall replace the original data for the sublot. Any remove and replace shall be performed at no additional cost to the department. If the engineer approves the nonconforming material to remain in place, it will be paid at 50% of the HMA Pavement contract price. (See the *About* worksheet of the WisDOT PWL Analysis Template for additional information regarding Dispute Resolution.)

*Delete standard spec 460.2.8.3.1.8 Corrective Action.*

**C Construction**

*Replace standard spec 460.3.3.2 Pavement Density Determination with the following to define lot sizes and locations of density testing:*

**460.3.3.2 Pavement Density Determination**

(1) The engineer will determine the target maximum density using department procedures described in CMM 8-15. The engineer will determine density as soon as practicable after compaction and before placement of subsequent layers or before opening to traffic.

(2) Do not re-roll compacted mixtures with deficient density test results. Do not operate continuously below the specified minimum density. Stop production, identify the source of the problem, and make corrections to produce work meeting the specification requirements.

(3) A lot is defined as 7500 lane feet with sublots of 1500 lane feet (excluding shoulder, even if paved integrally) and placed within a single layer for each location and target maximum density category indicated in table 460-3. The contractor is required to complete 15 QC tests per complete lot (3 randomly per sublot) and the department will randomly conduct one QV test per sublot. A partial quantity less than 1500 lane feet will be included with the previous sublot at the end of the project. Partial lots with less than three sublots shall be included into the previous lot. [Exclusions such as shoulders and appurtenances shall be tested according to CMM 8-15. However, all acceptance testing of shoulders and appurtenances will be conducted by the department.]

(4) The three QC locations per sublot will represent the outside, middle, and inside of the paving lane (i.e., the lane width will be divided into thirds as shown in Appendix A and random numbers will be used to identify the specific transverse location within each third according to CMM 8-15). Each location will be measured with two one-minute gauge readings oriented 180 degrees from one another, in the same footprint as detailed in Appendix A. Each location will be the average of the two readings. If the two readings exceed 1.0 $lb/ft^3$ of one another, a third reading shall be conducted at either orientation. In this event, all three readings shall be averaged, discard the initial of the three readings which falls farthest from the average value and then average the remaining two values to represent the location for the gauge. Multiple locations are not to be averaged together.

(5) QV nuclear testing will consist of a randomly selected location per sublot. The QV is also comprised of two one-minute readings, averaged as described in (4) above.

(6) A certified nuclear density technician shall locate samples and perform the testing. The responsible certified technician shall ensure that sample location and testing is performed correctly, analyze test results, and provide density results to the contractor weekly, at the completion of each lot.

*Replace standard spec 460.3.3.3 Waiving Density Testing with Acceptance of Density Data to define statistical analysis and dispute resolution:*

**460.3.3.3 Acceptance of Density Data**

(1) Acceptance of test data for pay determination will be contingent upon test results from both the contractor (QC) and the department (QV).

(2) The engineer, upon completion of the lot, will compare the variances (F-test) and the means (t-test) of the verification test results with the quality control test results. If the F- and t-tests indicate variances and means compare, the QC and QV data sets are determined to be statistically similar and QC data will be used for PWL and pay adjustment calculations.

(3) If the F- and t-tests indicate variances and means compare, QC data is determined to be appropriate to carry forward into subsequent calculations. If the F- and t-tests indicate variances or means do not compare, the QV data will be used for subsequent calculations.

(4) The department will determine mixture density conformance and acceptability by analyzing test results, reviewing mixture project data, and inspecting the completed pavement all according to Standard Spec, this document, and accompanying Appendices.

(5) Nonconforming mix (i.e., resulting in a PWL value less than 50 or not meeting the requirements of standard spec 460.3.3.1) may be subject to remove and replace, at the discretion of the engineer. Replacement may be conducted on a sublot basis. If an entire PWL sublot is removed and replaced, the test results of the newly placed material shall replace the original data for the sublot. Any remove and replace shall be performed at no additional cost to the department. If the engineer approves the nonconforming material to remain in place, it will be paid for at 50% of the HMA Pavement contract price.

**D Measurement**

The department will measure the HMA Pavement bid items acceptably completed by the ton as specified in standard spec 450.4 and as follows in standard spec 460.5 as modified here within.

**E Payment**

*Replace standard spec 460.5.2 HMA Pavement with the following to add payment for PWL:*

**460.5.2 HMA Pavement**

**460.5.2.1 General**

(1) Payment for HMA Pavement Type LT, MT, HT, and SMA mixes is full compensation for providing HMA mixture designs; for preparing foundation; for furnishing, preparing, hauling, mixing, placing, and compacting mixture; for QMP testing and aggregate source testing; for warm mix asphalt additives or processes; for stabilizer, hydrated lime and liquid antistripping agent, if required; and for all materials including asphaltic materials.

(2) If provided for in the plan quantities, the department will pay for a leveling layer, placed to correct irregularities in an existing paved surface before overlaying, under the pertinent paving bid item. Absent a plan quantity, the department will pay for a leveling layer as extra work.

**460.5.2.2 Calculation of Pay Adjustment for HMA Pavement using PWL**

(1) Pay adjustments will be calculated using a unit price of 65 dollars per ton of HMA pavement. The analysis template, including data, will be provided to the contractor by the department as soon as practicable upon completion of each lot. The department will pay for measured quantities of mix based on the unit price multiplied by the following pay adjustment calculated according to the *Calculations* worksheet of the WisDOT PWL Analysis Template:

**PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY**

| *PERCENT WITHIN LIMITS (PWL)* | *PAYMENT FACTOR, PF (percent of contract price)* |
|---|---|
| > 90 to 100 | PF = ((PWL – 90) * 0.4) + 100 |
| ≥ 50 to 90 | (PWL * 0.5) + 55 |
| <50 | 50%[1] |

where PF is calculated per air voids and density, denoted $PF_{air\ voids}$ & $PF_{density}$

[1] Any material resulting in PWL value of 50 or less shall be removed and replaced unless the engineer allows for such material to remain in place. In the event the material remains in place, it will be paid at 50% of the above stated unit price of 65 dollars per ton of HMA pavement.

For air voids, PWL values will be calculated using lower and upper specification limits of 2.0 and 4.3 percent, respectively.. Lower specification limits for density shall be according to Table 460-3. Pay adjustment will be determined on a lot basis and will be computed as shown in the following equation.

Pay Adjustment = (PF-100)/100 x (WP) x (tonnage) x (unit price)

The following weighted percentage (WP) values will be used for the corresponding parameter:

| Parameter | WP |
|---|---|
| Air Voids | 0.5 |
| Density | 0.5 |

Individual Pay Factors for each air voids ($PF_{air\ voids}$) and density ($PF_{density}$) will be determined. $PF_{air\ voids}$ will be multiplied by the total tonnage produced, and $PF_{density}$ will be multiplied by the tonnage used to pave the mainline only (i.e., excluding shoulder) as calculated according to CMM 8-15.

The department will pay incentive for air voids and density under the following bid items:

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 460.2005 | Incentive Density PWL HMA Pavement | DOL |
| 460.2010 | Incentive Air Voids HMA Pavement | DOL |

The department will administer disincentives under the Disincentive Density HMA Pavement and the Disincentive Air Voids HMA Pavement administrative items.

Note: PWL value determination is further detailed in the *Calculations* worksheet of the WisDOT PWL Analysis Template.

bts-PWL QMP (20161215)

## 23. Appendix A

### TEST Methods & Sampling for PWL QMP HMA Pavements

### TEST Methods & Sampling for PWL QMP HMA Pavement.

The following procedures are included to the HMA Pavement Percent Within Limits Quality Management Program (PWL QMP) special provision:

- WisDOT Procedure for Nuclear Gauge/Core Correlation

WisDOT Test Method for PWL QMP Density Measurements for Main Production

Sampling for WisDOT PWL QMP

## WisDOT Procedure for Nuclear Gauge/Core Correlation

The engineer is responsible for identifying the two zones in which gauge/core correlation is to be performed. These two zones are to be randomly selected within each of two sublots of the 750 ton test strip. Test strip sublots 1 and 2 are identified as between 50-400 tons and 401-750 tons, respectively.

Required field tests include contractor quality control (QC) and department quality verification (QV) nuclear density gauge tests and pavement coring. Each zone shall consist of five (5) locations across the mat as identified in Figure 1. The following shall be determined at each of the five locations within both zones:

- two one-minute nuclear density gauge readings for QC team*
- two one-minute nuclear density gauge readings for QV team*
- one pavement core sample

*If the two readings performed with the same gauge by the same team are not within +/- 1.0 lb/ft$^3$ of one another, a third reading shall be conducted. In this event, all three readings shall be averaged, discard the initial of the three readings which falls farthest from the average value and then average the remaining two values to represent the location for the gauge.

This appears as follows, in the field:

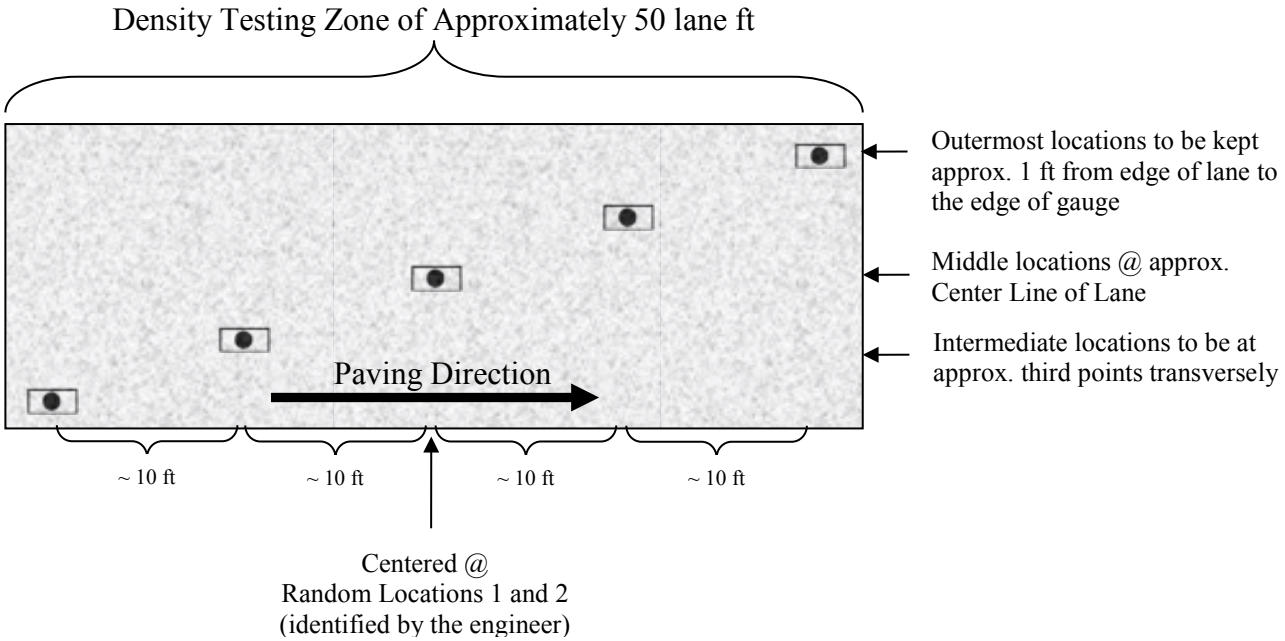



**Figure 1: Nuclear/Core correlation locations depicted**

Individual locations are represented by the  symbol as seen in Figure 1 above. The symbol is two-part, comprised of the nuclear test locations and the location for coring the pavement, as distinguished here:


The nuclear site is the same for QC and QV readings for the test strip, i.e., the QC and QV teams are to take nuclear density gauge readings in the same footprint. Each of the QC and QV teams are to take two one-minute readings per nuclear site, with the gauge rotated 180 degrees between readings, as seen here:

(a) (b)

**Figure 2: Nuclear gauge orientation for (a) 1st one-minute reading and (b) 2nd one-minute reading**

The core shall then be taken from the center of said footprint to be used to correlate each gauge with laboratory measured bulk specific gravities of the pavement cores. One core in good condition must be obtained from each of the 10 locations. If a second core is needed, it shall be obtained from within the same gauge footprint. The contractor is responsible for coring of the pavement. Coring and filling of core holes must be approved by the engineer. The QV team is responsible for the labeling and safe transport of the cores from the field to the QC laboratory. Core density testing shall be conducted by the contractor and witnessed by department personnel. The contractor is responsible for drying the cores following testing. The department shall take possession of cores following initial testing and shall be responsible for any verification testing.

Each core 100 or 150 mm (4 or 6 inches) in diameter will be taken at locations identified in Figure 1. [Appropriate core diameter shall be selected based on layer thickness and shall be decided at the prepave meeting and remain consistent for the duration of the project.] Each random core will be full thickness of the layer being placed. The contractor is responsible for thoroughly drying cores obtained from the mat according to ASTM D 7227 prior to using specimens for in-place density determination according to AASHTO T 166.

All core holes shall be filled with non-shrink grout or HMA. When using rapid hardening grout, all water shall be removed from the core holes prior to filling and the mortar or concrete shall be mixed in a separate container prior to placement in the hole. If HMA is used, fill all core holes with hot-mix matching that day's production mix type at that day's compaction temperature +/- 20F. The core holes shall be dry and coated with tack before filling, filled with a minimum of two layers (single layer allowed for pavement layers $\leq$ 2 inches in thickness), and compacted with a Marshall hammer or similar tamping device using approximately 50 blows per layer. The finished surface shall be flush with the pavement surface. Any deviation in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the layer thickness and replacement.

The core densities collected from the 10 locations of the test strip and the QV results from the three split samples will be used to determine material acceptance and pay. The PWL value is calculated according to the calculations worksheet in the WisDOT PWL Analysis Template.

A PWL value for air voids and density shall be calculated after completion of the testing. An acceptable test strip is defined as the individual PWL values for air voids and density are both above 75 or the average of the two are above 80. Full production may not continue until an acceptable test strip has been completed. If a PWL value on the test strip is below 50, the material is considered nonconforming and the test strip is unacceptable. If the material is allowed to remain in place, a second test strip shall be constructed. If the material is determined to be removed and replaced, a new test strip will replace the previous one at no additional cost to the department. If a PWL value is between 50 and 75, the material is considered conforming, although a second test strip will need to be constructed. If the second test strip is not acceptable as defined above, it shall be removed and replaced. A maximum of two test strips may be left in place on the project. Additional guidance on test strip and material acceptance is found in Figure 3.

.

| PWL Value | Test Strip and Material Acceptance |
|---|---|
| >75 (individual) and 80 (combined) | Material conforms, Test Strip is acceptable |
| $50 \leq$ PWL $\leq 75$ | Material conforms, Test Strip is not acceptable* |
| < 50 | Material nonconforming, may be removed and replaced, Test Strip not acceptable* |

* A maximum of two test strips may be left in place on the project.

All test reports shall be submitted to WisDOT upon completion, and approved before paving resumes. The department shall notify the contractor within as soon as practicable after completion of the test strip regarding approval to proceed with paving beyond the test strip.

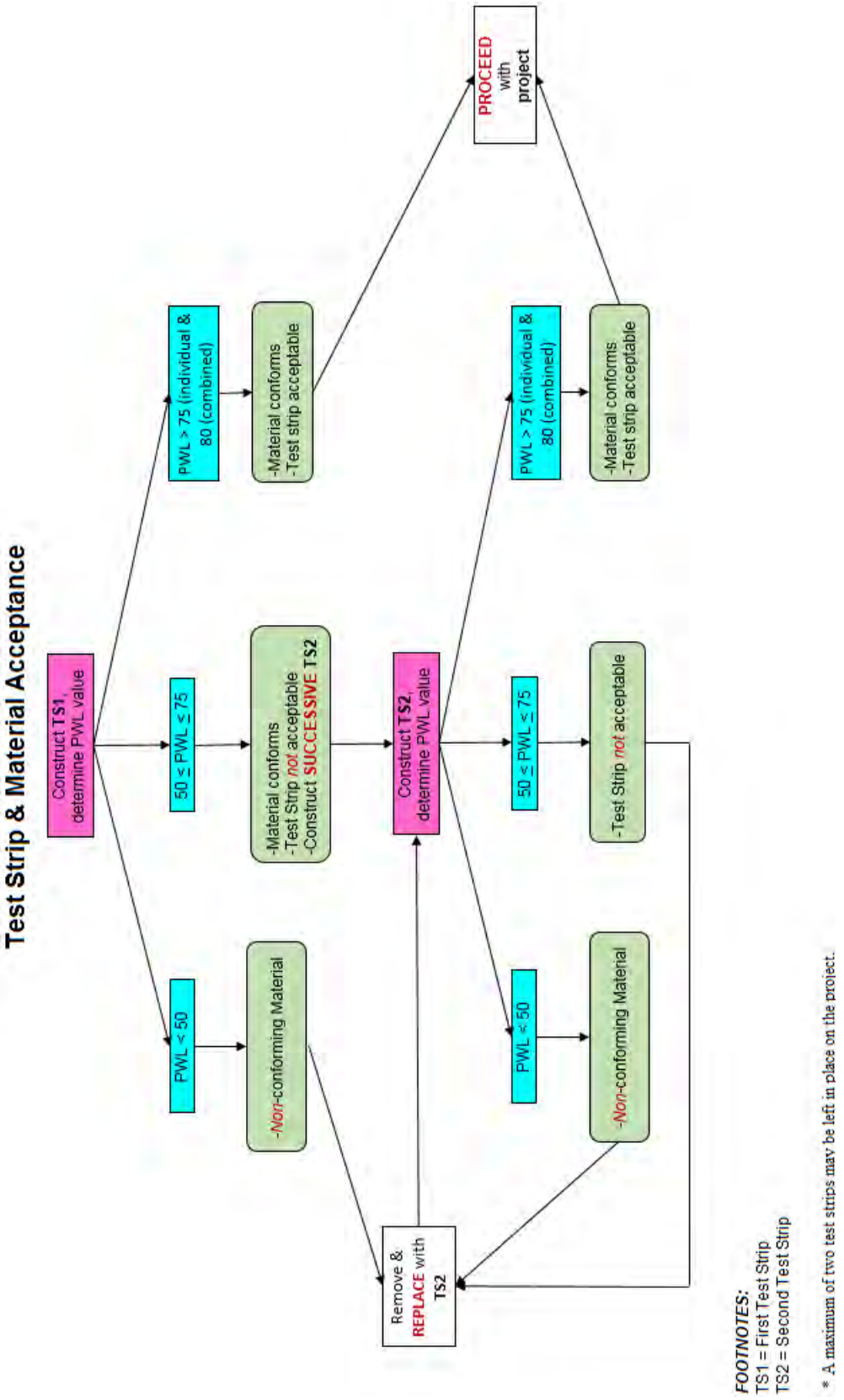



**Figure 3: Flowchart for guidance of material and test strip acceptance for PWL**

## WisDOT Test Method for PWL QMP Density Measurements for Main Production

For nuclear density testing of the pavement beyond the test strip, QC tests will be completed at three locations per sublot, with a sublot defined as 1500 lane feet. The three locations will represent the outside, middle, and inside of the paving lane (i.e., the lane width will be divided into thirds as shown by the dashed longitudinal lines in Figure 3 and random numbers will be used to identify the specific transverse location within each third according to CMM 8-15). Longitudinal locations within each sublot shall be determined with 3 independent random numbers. Each location will be measured with two one-minute gauge readings oriented 180 degrees from one another, in the same footprint as detailed above. Each location will be the average of the two readings. Multiple locations are not to be averaged together. QV nuclear testing will consist of randomly selected location per sublot. The QV is also comprised of two one-minute readings. This is depicted as follows, with QC test locations shown as solid lines and QV as dashed.

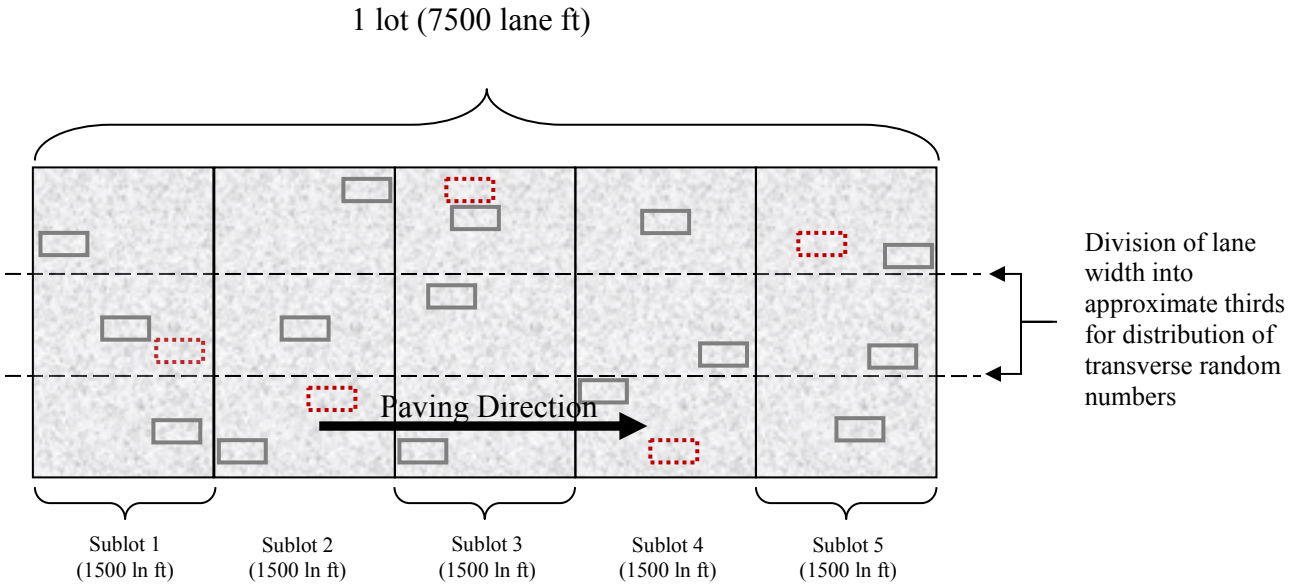



**Figure 3: Locations of main lane HMA density testing (QC=solid lines, QV=dashed)**

QC and QV nuclear density gauge readings will be statistically analyzed according to the following section of this Appendix. (Note: For density data, if F- and t-tests pass, QC data will be used for the subsequent calculations of PWL value and pay determination. However, if an F- or t-test failure occur, the QV data will be used in subsequent calculations.)

# Sampling for WisDOT PWL QMP

*Delete CMM 8-36.4 Sampling Hot Mix Asphalt and replace with the following to update sublot tonnages:*

**Sampling Hot Mix Asphalt**

At the beginning of each day the contractor determines the anticipated tonnage to be produced. The frequency of sampling (minimum number of required tests for the day's anticipated production) is defined by the PWL QMP SPV. A test sample is obtained randomly from each sublot.

*Example 1*

Expected day's production is 2,400 tons. The number of required samples is determined based on this expected production (per PWL QMP SPV) and is determined by the random sample calculation.

Sample 1 – from 50 to 750 tons
Sample 2 – from 751 to 1500 tons
Sample 3 – from 1501 to 2250 tons
Sample 4 – from 2251 to 3000 tons

The approximate location of each sample within the prescribed sublots is determined by selecting random numbers using ASTM Method D-3665 or by using a calculator or computerized spreadsheet that has a random number generator. The random numbers selected are used in determining when a sample is to be taken and will be multiplied by the sublot tonnage. This number will then be added to the final tonnage of the previous sublot to yield the approximate cumulative tonnage of when each sample is to be taken.

To allow for plant start-up variability, the procedure calls for the first random sample to be taken at 50 tons or greater per production day (not intended to be taken in the first two truckloads). Random samples calculated for 0-50 ton should be taken in the next truck (51-75 ton).

*Example 2*

| Required Sample | Sublot Sample Tonnage Range | Random No. ASTM D-3665 | Sublot Sample Ton (Random No. x Sublot ton) | End of Previous. Range | Cumulative Sample Tonnage |
|---|---|---|---|---|---|
| 1 | 50 - 750 | 0.572 | RN x 750= 429 | 0 | 429 |
| 2 | 751 - 1500 | 0.353 | RN x 750= 265 | 750 | 1015 |
| 3 | 1501 - 2250 | 0.656 | RN x 750= 492 | 1500 | 1992 |
| 4 | 2251-3000 | 0.251 | RN x 750= 188 | 2250 | 2438 |

This procedure is to be used for any number of samples per day.

If the day's production is less than the final randomly generated sample tonnage for that day, then the random sample is to be collected from the remaining portion of that sublot on a subsequent day of production. If the randomly generated sample is calculated to be within the first 0-50 tons of the subsequent day of production, it should be taken in the next truck. Add a random sample for any fraction of 750 tons at the end of the

project. Lot size will consist of 3750 tons with sublots of 750 tons. Partial lots with less than three sublot tests shall be included into the previous lot.

It's intended that the plant operator not be advised ahead of time when samples are to be taken. If the plant operator is involved in recording a Pb (%AC) to match up with the mix sample tonnage, then notification need not be earlier than 60 minutes before the mix sample being taken.

If belt samples are used during troubleshooting, the blended aggregate will be obtained when the mixture production tonnage reaches approximately the sample tonnage. For plants with storage silos, this could be up to 60 minutes in advance of the mixture sample that's taken when the required tonnage is shipped from the plant.

*Delete CMM 8-36.4.2.1 through 8-36.4.2.3 and replace with the following PWL (3-way) Split Sample Sizes*

***PWL (3-way) Split Sample Sizes***

- Minimum sample sizes are referenced below and are guidance for meeting requirements for test completion.

| Mixture NMAS | Sample Size |
|---|---|
| $\leq$ 12.5mm (1/2") | 105 lb |
| 19.0mm - 25.0mm (3/4" – 1") | 150 lb |
| $\geq$ 37.5mm ( 1-1/2") | 240 lb |

- The total sample for larger NMAS (nominal maximum aggregate size) mixtures will be enough to provide the required minimum testing sample size as defined in Figure 3.

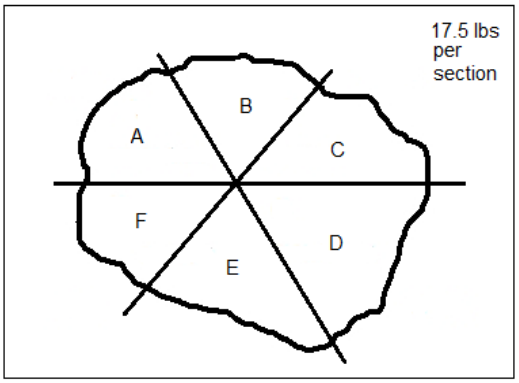
*Delete 8-36.5.1.1 Step 1 and replace with the following Initial Splitting of Sample*

***Initial Splitting of Sample***

For QC sample reduction the HMA sample in the containers is mixed and quartered. The quartering process should then proceed as follows:

i. Collect the minimum sample size given in the *PWL Split Sample Size* section above. Split the sample into "Test" and "Retained" samples. Place entire sample on table, quickly re-mix and split to minimize temperature loss. Split the Test and Retained samples as shown on Figure 3. For 1/2" mixes start with at least a total of 105 lbs of HMA.

**Figure 3 Superpave Sample for 105 lbs for three-way split for QC, QV, and retained samples**




*(a)* *(b)*

ii. For a three-way split shown in Figure 3, *diagonal sections*, as indicated on the sketch, must be combined to form the QV sample (A+D), retained sample (B+E) and the QC test sample (C+F). The retained sample must be bagged, labeled, and stored in a safe dry place. The retained samples may be tested using the "rule of retained" (see "Definitions" section).

iii. The QC and QV test samples are then further split for the specified tests. Continue the splitting process in *Further Reduction of Samples to Test Sizes* for the test materials until individual samples are in the oven.

*Delete CMM 8-36.5.2 Use of Alternative Sampling / Quartering Devices (ex: Quartermaster) and replace with the following:*

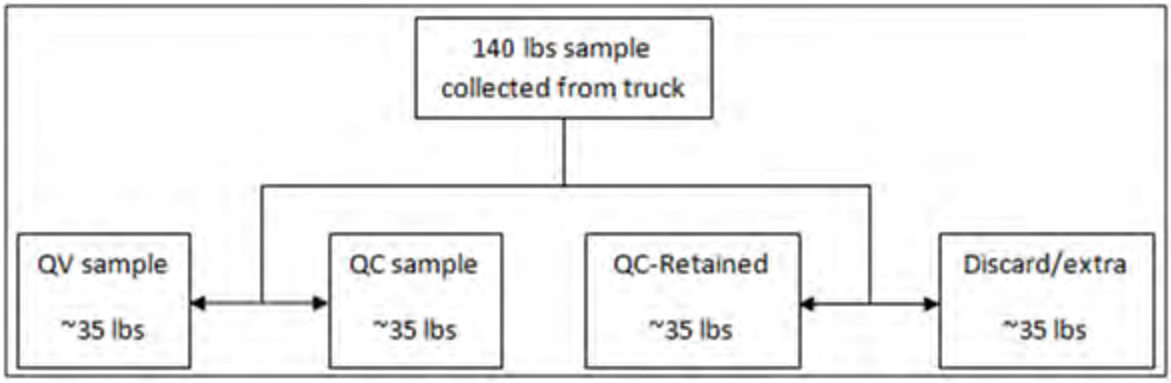
**Use of Alternative Sampling / Quartering Devices (ex: Quartermaster)**

Use of other devices to assist in the sampling and splitting procedures may be used with approval of the department. The Quartermaster is one such device. A picture of a Quartermaster device is shown in Figure 6.

**Figure 6 Quartermaster Quartering Device**

*Example 3*

If a quartermaster is used to reduce a three-way split sample into the proper quanitites, it is required to collect approximately 133% the minimum sample size shown in *PWL Split Sample Sizes* (e.g. 133% of 105 is approximately 140 lbs), use the selected device to split, and discard the extra quadrant of material.






## 24. Intelligent Transportation System – General.

### A Description

The work herein is included in the contract items for furnishing and installing elements for an Intelligent Transportation System (ITS) in or along the existing roadway as shown on the plans.

Unusual aspects of this project include:

- The project includes working on cables and equipment that are carrying data between roadside equipment and the WisDOT Traffic Operations Center (TOC). This work must be done in a way that minimizes communication outages for the existing equipment.
- Some of the equipment to be installed will be furnished by the department. Make a reasonable effort to discover defects in that equipment prior to installing it.

### A.1 Surge Protection

Equip every ungrounded conductor wire entering or leaving any equipment cabinet or camera housing with a surge protector. For purposes of this section, multiple cabinets on a single pole or foundation are considered a single cabinet.

### B Materials

### B.1 General

All equipment and component parts furnished shall be new and have high quality workmanship. All controls, indicators, and connectors shall be clearly and permanently labeled in a manner approved by the engineer. All equipment of each type shall be identical.

All electrical equipment shall conform to the standards and requirements of the Wisconsin Electrical Code, the National Electrical Manufacturers Association (NEMA), National Electric Safety Council (NESC), Underwriter's Laboratory Inc. (UL) or the Electronic Industries Association (EIA), when applicable. All materials and workmanship shall conform to the requirements of the National Electrical Code (NEC), Rural Electrification Administration (REA), Standards of the American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), requirements of the plans, these technical special provisions, the standard specifications, and to any other codes, standards, or ordinances that may apply. All system wiring, conduit, grounding hardware and circuit breakers shall be in conformance with the National Electrical Code. Whenever reference is made to any of the standards mentioned, the reference shall be considered to mean the code, ordinance, or standard that is in effect at the time of the bid advertisement.

**B.2 Outdoor Equipment**

All conductive connectors, pins (except pins connected by soldering), and socket contacts shall be gold plated. Acrylic conformal coating shall protect each circuit board side that has conductive traces. Except for integrated circuits containing custom firmware, all components shall be soldered to the printed circuit board.

To prevent galvanic corrosion, all connections between dissimilar metals shall incorporate a means of keeping moisture out of the connection. Where the connection need not conduct electricity, interpose a non-absorbing, inert material or washer between the dissimilar metals. Use nonconductive liners and washers to insulate fasteners from dissimilar metals. Where the connection must conduct electricity, use a conductive sealant between the dissimilar metals. Alternatively, use an insulating gasket and a bond wire connecting the two metal parts.

**B.3 Custom Equipment**

Equipment that is not part of the manufacturer's standard product line, or that is made or modified specifically for this project, shall conform to the following requirements:

Where practical, electronics shall be modular plug-in assemblies to facilitate maintenance. Such assemblies shall be keyed to prevent incorrect insertion of modules into sockets.

All components shall be available from multiple manufacturers as part of the manufacturers' standard product lines. All must be clearly labeled with the value, part number, tolerance, or other information sufficient to enable a technician to order an exact replacement part.

Lamps used for indicator purposes shall be light-emitting diodes.

The printed circuit boards shall be composed of two-ounce copper on 1/16 inch thick fiberglass epoxy or equivalent type construction. Holes that carry electrical connections from one side of the boards to the other shall be completely plated through. Multilayer printed circuit boards shall not be used. The name or reference number used for the board in

the drawings and maintenance manuals supplied to the department shall be permanently affixed to each board.

All components shall be mounted so that the identifying markings are visible without moving or removing any part, if practical.

**B.4 Environmental Conditions**

Equipment shall continue to operate as specified under the following ranges of environmental conditions, except as noted in the specifications for individual pieces of equipment.

1. Vibration and Shock: Camera assemblies, vehicle detectors, detection classification sensors, and any other equipment mounted on top of poles or on structures shall not be impaired by the continuous vibration caused by winds (up to 90 mph with a 30 percent gust factor) and traffic.
2. Duty Cycle: Continuous.
3. Electromagnetic Radiation: The equipment shall not be impaired by ambient electrical or magnetic fields, such as those caused by power lines, transformers, and motors. The equipment shall not radiate signals that adversely affect other equipment.
4. Electrical Power:
    a. Operating power: The equipment shall operate on 120 volts, 60 Hz, single-phase unless otherwise specified. It shall conform to its specified performance requirements when the input voltage varies from 89 to 135 volts and the frequency varies + 3 Hz.

    b. High frequency interference: The equipment operation shall be unaffected by power supply voltage spikes of up to 150 volts in amplitude and ten microseconds duration.

    c. Line voltage transients: The equipment operation shall be unaffected by voltage transients of plus or minus 20 percent of nominal line voltage for a maximum duration of 50 milliseconds. Equipment in the field shall meet the power service transient requirements of NEMA Standard TS-2 when connected to the surge protectors in the cabinets.
5. Temperature and Humidity:
    a. Field equipment: Equipment in the field shall meet the temperature and humidity requirements of NEMA Standard TS-2. Liquid crystal displays shall be undamaged by temperatures as high as 165 degrees F, and shall produce a usable display at temperatures up to 120 degrees F.

    b. Equipment in Controlled Environments shall operate normally at any combination of temperatures between 50 degrees F and 100 degrees F, and humidity's between 5 percent and 90 percent, non-condensing, and with a temperature gradient of 9 degrees F per hour.

### B.5 Patch Cables and Wiring

All cables and wiring between devices installed in a single cabinet, or in separate cabinets sharing a single concrete base, will be considered incidental to the installation of the devices and no separate payment will be made for them. It is anticipated that this will include fiber optic patch cables between termination panels and Ethernet switches, 10 / 100 MBPS Ethernet cables, RS-232 cables between individual devices and terminal servers, and power cables between individual devices and power sources within the cabinets.

### B.6 Surge Protection

Low-voltage signal pairs shall be protected by two-stage, plug-in surge protectors and shall be installed on both ends of camera control cables. The protectors shall meet or exceed the following minimum requirements:

- The protectors shall suppress a peak surge current of up to 10K amps.
- The protectors shall have a response time less than one nanosecond.
- The protector shall clamp the voltage between the two wires at a voltage that is no more than twice the peak signal voltage, and clamp the voltage between each wire and ground at 50 volts.
- The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.
- The protector shall also contain a resettable fuse (PTC) to protect against excessive current.
- There shall be no more than two pairs per protector.
- It shall be possible to replace the protector without using tools.

Loop detector cables and cables carrying power to camera assemblies shall be protected at the cabinet by grounded metal oxide varistors of appropriate voltages. The varistors must be at least 0.8 inch in diameter.

Coaxial cables carrying video signals shall be protected at each end by suppressors designed for baseband CCTV signals. The suppressors shall conform to the following:

- Surge: 18,000 amps with an 8 x 20 microsecond waveform
- Turn-on time: 4ns for 2 kV/ns
- VSWR: 1.1:1 or less
- Insertion loss: 0.3 dB or less
- Frequency range: DC to 30 MHz
- BNC connectors
- Operating voltage: 1.5 volts
- Impedance: 75 ohms

## C Construction

### C.1 Communication Vaults

All openings in communication vaults must be cored or blocked out at time of fabrication, or cored at time of placement. Where multi-cell or standard nonmetallic conduit is terminated at manholes, the coring or boxout shall be no larger than 6 inches in diameter or

6 inches square respectively for each conduit. Where multi-cell, directional bore or nonmetallic conduit special is terminated at manholes, a boxout of no more than 14 inches by 6 inches high by 3 inches deep positioned at 90 degrees will be allowed.

**C.2 Thread Protection**

Rust, corrosion, and anti-seize protection shall be provided at all thread assemblies of metallic parts by coating (non-spray) the mating surfaces with an approved compound. Failure to use an approved compound will result in no payment for the items to which coating was to have been applied.

**C.3 Cable Installation**

When new cables are to be installed into conduits containing existing cables, remove the existing cables and reinstall the existing cables simultaneously with the new cables. Take every precaution necessary to protect the existing cables. In the event of avoidable damage to the existing cables, replace all damaged cables, in-kind, at no additional expense to the department. When cables are pulled into conduit, use a cable pulling lubricant approved by the cable manufacturer. Submit documentation supporting manufacturer approval of the lubricant to the engineer.

When cables are installed in conduit before the proper installation of bushings or bell ends on the conduit or without the use of cable lubricant, the cables will be paid at 50 percent of the contract unit price if testing shows no damage to the cables. Replace all cables which testing shows to be damaged at no cost to the department.

**C.4 Wiring**

Every conductor, except a conductor contained entirely within a single piece of equipment, must terminate either in a connector or on a terminal block. Provide and install the connectors and terminal blocks where needed, without separate payment. Approved splice kits shall be used instead of connectors and terminal blocks for underground power cable splices.

Permanently label and key connectors to preclude improper connection. The labeling method(s) must be approved by the engineer prior to use.

Terminal blocks must be affixed to panels that permanently identify the block and what wire connects to each terminal. This may be accomplished by silk screening or by installing a laminated printed card under the terminal block, with the labels on portions of the card that extend beyond the block. Installation of terminal blocks by drilling holes in the exterior wall of the cabinet is not acceptable.

Use barriers to protect personnel from accidental contact with all dangerous voltages.

Do not install conductors carrying AC power in the same wiring harness as conductors carrying control or communication signals.

Arrange wiring, including fiber optic pigtails, so that any removable assembly can be removed without disturbing wiring that is not associated with the assembly being removed.

Communication and control cables may not be spliced underground, except where indicated on the plans.

Cables in the Traffic Operations Center or in communication hubs, that are not contained within a single cabinet, shall have at least 10 feet of slack.

**C.5 System Operations**
If the contractor's operations interrupt Intelligent Transportation Systems (ITS) service, notify the engineer immediately and restore service within 24 hours. Repair all damaged facilities to the condition existing before the interruption. If service is not restored within 24 hours, the department may restore service to any operating device and deduct restoration costs from payments due the contractor.

**C.6 Surge Protection**
Arrange the equipment and cabinet wiring to minimize the distance between each conductor's point of entry and its protector. Locate the protector as far as possible from electronic equipment. All wiring between the surge protectors and the point of entry shall be free from sharp bends.

**D Measurement**
No separate measurement will be made for the work described in this article.

**E Payment**
No separate payment will be made for the work described in this article. All work described in this article shall be included under the ITS items in the contract.

## 25. Concrete Pavement Partial Depth Repair Joint Repair, Item 416.0750.S.

**A Description**
This special provision describes removal of deteriorated concrete, furnishing, placing and curing concrete to the original slope and grade, and reestablishing cracks or joints at areas shown on the plans and as directed by the engineer, all according to the requirements of the plans, the standard specifications, and as hereinafter provided.

The item Concrete Pavement Partial Depth Repair Joint Repair consists of removing deteriorated concrete at the areas designated in the plans, furnishing, placing, and curing concrete to the original slope and grade, and reestablishing joints.

The item Concrete Pavement Partial Depth Repair Crack Repair consists of removing deteriorated concrete at the areas designated in the plans, furnishing, placing, and curing concrete to the original slope and grade, and reestablishing cracks.

The item Concrete Pavement Partial Depth Repair Surface Repair consists of removing deteriorated concrete at the areas designated in the plans, furnishing, placing, and curing concrete to the original slope and grade.

The item Concrete Pavement Partial Depth Repair Edge Repair consists of removing deteriorated concrete at the areas designated in the plans, furnishing, placing, and curing concrete to the original slope and grade.

The item Concrete Pavement Partial Depth Repair Full Depth Adjustment consists of removing deteriorated concrete at the areas designated in the plans, furnishing and installing required pavement tie, furnishing, placing, and curing concrete to the original slope and grade, and reestablishing joints.

**A.1 General**

In advance of the beginning of the rehabilitation operation, establish traffic control for rehabilitation surveys and marking of locations.

Any removal and replacement of existing asphaltic concrete pavement in conjunction with the concrete pavement operations shall be incidental work for which no direct payment will be made unless otherwise shown in the plan.

Perform the removal operation in a manner that precludes damage to the remaining pavement. Any damage to the in-place concrete pavement by the contractor's operations, shall be repaired prior to acceptance as directed by the engineer and at no expense to the department.

Milling is generally completed with one pass of the milling machine. The nominal width of Joint Repair or Crack Repair shall not exceed 12 inches (305) mm). Any repair area required, beyond the nominal 12-inch (305 mm) width will be paid for as Surface Repair. The length of Full Depth Adjustment, along the transverse joint, from the nearest longitudinal joint, shall not be greater than 18 inches (458 mm).

If during removal operations it is determined that a full-lane width, full-depth repair its required, the contractor will receive partial payment for a measured quantity of the intended repair item, and the work shall be completed under the item of Concrete Pavement Repair, Item 416.0710. If after milling a transverse joint deteriorated concrete exists greater than 4 inches wide and 6 feet in length, the joint shall be converted to a full-depth Concrete Pavement Repair.

Do not place repair concrete when the ambient air temperature is below 50° F (10° C), except as permitted by the engineer. When the ambient air temperature is below 50° F (10° C) the engineer may require covering during the initial curing period.

Partial depth repair areas should be inspected for possible debonding, by chain dragging or other suitable procedure, before opening to public traffic. Debonded repairs must be removed and replaced.

Opening of pavement repairs to traffic will be controlled by cylinder tests, as set forth in standard spec 415.3.15.

Replace any area of the asphaltic shoulder damaged during the pavement removal operations under this item with a commercially produced asphaltic patching material to the elevation of the adjacent shoulder.

At no expense to the department, remove and replace any areas of failure that appear within one month of the original repair, or any subsequent repair, including traffic control. Failures include but may not be limited to loss of bonding to the in-place concrete, spalling, or crack apparent in the repair other than the desired crack in the newly constructed joint or reestablished crack.

**A.2 Equipment**

Use only concrete milling machines that are equipped with a device for stopping at preset depths to prevent damage to dowel bars. Additionally, shroud the equipment to prevent discharge of any loosened material into adjacent work areas or live traffic lanes.

Use air chippers or breakers for chipping the old concrete surface that have a total weight not exceeding 30 lb. (13.6 kg) and are equipped with flat, chisel-type points that have cutting edges not less than .75 inch (19 mm) or greater than 3 inches (76.2 mm) wide.

Use concrete mixing equipment that provides material of uniform consistency. Do not prepare site-mixed concrete more than ½ hour prior to placement. Do not prepare ready-mixed concrete more than 1 hour prior to placement.

Use mechanical vibrators that are capable of operating at frequencies sufficient to achieve thorough and uniform consolidation, but not less than 7000 impulses per minute. Have available at least one spare vibrator, in working order and of sufficient frequency, on the work site before concrete placement is started.

**B Materials**

All materials used in the work shall conform to the requirements specified for the class of material named.

**B.1 Concrete**

The replacement concrete shall comply with the standard specifications except as modified below. It shall be furnished, placed, and cured according to the provisions in the plans, specifications, and contract.

Use the following proportions for 1 cubic yard (cubic meter) of concrete:

| | |
|---|---|
| 850 lb. (505 kg) Portland Concrete | (Type 1 or Type III) |
| 1338 lb. (794 kg) Fine Aggregate | (Per standard specifications except max'm P200=2.5%) |

1338 lb. (794 kg) Coarse Aggregate (See table below for gradation)
* These quantities assume a specific gravity of 2.65.

| Coarse Aggregate Gradation | | |
|---|---|---|
| Sieve | % Passing | |
| 3/8 | (9.5 mm) | 100 |
| #4 | (4.75 mm) | 55-95 |
| #50 | (300 µm) | 0-5 |
| #200 | (75 µm) | 0-1.0 |

Maximum slump shall be 1 inch (25 mm).

Air Content shall be 6% ±1.5%

ASTM C494 Type A admixture shall be used, unless Type E is used.

ASTM C494 Type E admixture may be used, according to the manufacturer's recommendations, to achieve the required opening strength in the desired time period. Dosage will vary with ambient temperature and desired opening time.

The use of more than 50% of the maximum manufacturer's recommended dosage of Type E admixture will require the concrete to be sprayed with curing compound and covered with wet burlene.

**B.2 Compression Relief Material**
Provide compression relief material that is made of a rigid, compressible, non-absorbent material.

**B.3 Bonding Agent**
Use bonding grout that consists of equal portions of Portland cement and sand, mixed with sufficient water to form a slurry having the consistency of thick cream.

**B.4 Concrete Curing Agent**
Provide a concrete curing agent that is a resin of 100 percent poly-alpha-methylstyrene type curing compound meeting ASTM C309, Type 2, Class B specifications and conforming to all requirements according to the following table:

| Properties | Minimum | Maximum |
|---|---|---|
| Total Solids, % by weight of compound | 42 | |
| Reflectance in 72 hours (ASTM E1347 | 65 | |
| Loss of Water, kg/m2 in 24 hours (ASTM C156) | | 0.15 |
| Loss of water, kg/m2 in 72 hours (ASTM C156) | | 0.40 |
| Settling Test, ml/100 ml in 72 hours 1 | | 2 |
| V.O.C. Content, g/L | | 350 |
| Infrared Spectrum, Vehicle2 | 100% alpha-methylstyrene | |

[1] Test Method on file at the department's Materials Testing Lab.

[2] The infrared scan for the dried vehicle from the curing compound shall match the infrared scan on file at the department's Materials Testing Lab.

Shelf life of the product shall be six months from date of manufacture. The product may be re-tested by the department's Materials Testing Lab and re-approved, if the physical and chemical properties have not changed, for an additional six months. However, the maximum shelf life shall not exceed one year from manufacture date.

**C Construction**

Remove the concrete by milling to the depths and dimensions as shown on the plan or as determined by the engineer, or both.

Milling may be accomplished either longitudinally or transversely to the joint, crack, or edge. The removal process must not damage dowel bars. In the event a dowel bar exhibits excessive corrosion, cut, or burn-off the bar.

The removal of the concrete surface in the designated repair areas shall have a minimum depth of 2 inches (50.8 mm) with all deteriorated concrete removed to a maximum depth of one-half the pavement thickness, or the top of the dowel bars. Using air chippers, remove all cracked or deteriorated concrete exposed after milling to sound concrete. Chipping at the milled surface of the crack or joint shall be a minimum 2 inches wide and shall be at a 1:1 slope.

When dowel bars are present, take precaution not to disturb unsound concrete below the tops of the dowels. If some of this unsound material is accidentally blown out during the cleaning process, fill in the voids with clean, dry sand.

Use air chippers only for final preparation of the repair area.

Storage of the removed material on the roadway will only be permitted in conjunction with a continuous removal and pick-up operation. During non-working hours, clear the roadway of all materials and equipment.

The removed pavement shall become the property of the contractor and disposed of according to standard spec 204.3.1.3.

Install pavement ties according to standard spec 416.3.6.

Sandblast all exposed surfaces within 24 hours prior to concrete placement. If it rains prior to concrete placement, sandblast the repair areas again. Additionally, clean the repair areas of loose material by air blasting before applying the bonding grout.

Coat exposed surfaces of dowel bars to prevent bonding between the bar and the repair concrete. Take precaution to prevent contamination of existing concrete in the repair area.

Place compression relief material to maintain the continuity of the existing crack or to reestablish the joint in a full-depth adjustment. Install compression relief material such that it remains in position and is tight to all edges during placement of the repair concrete. During concrete placement and vibrating, keep the compression relief material in contact with the bottom of the repair area. To ensure that cracks are reestablished in their original locations, scribe their locations on the adjoining pavement outside the removal area, prior to removal operations.

Reestablish cracks and joints to a ¼-inch width, or to the existing crack or joint width, whichever is greater.

Immediately prior to placing the concrete, coat the repair surface with bonding grout. The surface shall be completely dry for at least one-half hour before coating with bonding grout. If the surface isn't completely dry, dry the surface using heat to remove all moisture from the repair surface. Mix the grout by mechanical means and thoroughly brush it over the prepared concrete surface to ensure that all parts receive an even coating. No excess grout shall be permitted to collect in pockets. Place grout within 1½ hours of mixing. If the grout whitens, sandblast, and re-grout.

Vibrate concrete as necessary to uniformly and thoroughly consolidate the entire mass of fresh concrete without causing segregation of the aggregates or the formation of localized areas of grout.

Concrete repairs shall not protrude beyond the original cross-section of the pavement by more than 3/8 inch (9.5 mm). The edges shall be formed or sawn full-depth.

Strike-off the surface of the repaired area flush with the adjacent concrete and finish the surface to a uniform texture, true to grade and cross section and free from porous areas. As a final finishing operation, float the concrete toward the edges of the repair.

While the concrete is still plastic, the repair shall be tested for trueness with a straightedge.

Reestablish cracks using compression relief material to or beyond the surface of the repair. Initially reestablish joints in plastic concrete by using a jointing tool. Establish tooled joints to a minimum depth of 2 inches. Tooled edges shall be provided, adjacent to all compression relief material, in fresh concrete. Complete the removal of excess compression relief material above the pavement surface without damage to the repair area. The method of removal will be reviewed and approved by the engineer prior to any removal.

Surface texturing, if required by the engineer, shall consist of a broomed finish in the long dimension direction of the repair.

Apply curing compound to the fresh concrete as soon as possible. Apply the compound uniformly, at a minimum rate of one gallon per 100 square feet (0.41 $L/m^2$).

Restore joints by sawing. Saw the joints in a single cut, to the width and depth shown on the plans, and according to standard spec 415.3.9.

Thoroughly clean the joint or crack after sawing to remove loose compressible material.

**D Measurement**

The department will measure Concrete Pavement Partial Depth Repair Joint Repair; Concrete Pavement Partial Depth Repair Crack Repair; and Concrete Pavement Partial Depth Repair Edge Repair by the linear foot, acceptably completed.

The department will measure Concrete Pavement Partial Depth Repair Surface Repair and Concrete Pavement Partial Depth Repair Full Depth Adjustment in area by the square foot, acceptably completed.

**E Payment**

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 416.0750.S | Concrete Pavement Partial Depth Repair Joint Repair | LF |

If a Partial Depth Repair item is changed, by the engineer, to a full-depth repair, the contractor shall be paid at a measured quantity of 40 percent of the intended repair plus the full cost for Full Depth Repair.

Payment for Concrete Pavement Partial Depth Repair Joint Repair; Concrete Pavement Partial Depth Repair Crack Repair, and Concrete Pavement Partial Depth Repair Edge Repair, is full compensation for removing the concrete; disposing of materials; furnishing and placing sand where required; furnishing and placing compression relief material where required; furnishing and placing preformed joint filler where required; placement and curing of the concrete; and for reestablishing cracks or joints.

Payment for Concrete Pavement Partial Depth Repair Surface Repair and Concrete Pavement Partial Depth Repair Full Depth Adjustment, is full compensation for removing the concrete; for disposing of materials; furnishing and installing pavement ties where necessary; furnishing and placing preformed joint filler where required; furnishing and placing compression relief material where required; replacing the concrete; and reestablishing joints. The item Partial Depth Repair, Full Depth Adjustment will be paid for as a separate item at locations where it is necessary to extend the repair through the full remaining concrete pavement thickness.

stp-416-015 (20160607)

## 26. Reheating HMA Pavement Longitudinal Joints, Item 460.4110.S.

**A Description**

This special provision describes reheating the abutting edge of the previously compacted layer in the adjacent lane while paving mainline asphalt pavements.

**B (Vacant)**

**C Construction**

**C.1 Equipment**

Provide a self-contained heating unit that heats by convection only. Do not use forced air to enhance the flame. Provide a fireproof barrier between the flame and the heater's fuel source. The heater must produce a uniform distribution of heat within the heat box. Provide automatic controls to regulate the heater output and shutoff the heater when the paver stops or the heater control system loses power.

Mount the heater on the paver inside the paver's automatic leveling device.

**C.2 Reheating Joints**

Evenly reheat at least an 8 inch (200 mm) wide strip of the previously compacted layer in the adjacent lane as follows:

- Reheat the joint to within 60 degrees F (15 degrees C) of the mix temperature at the paver auger. Measure joint temperature immediately behind the heater.

The engineer may allow the required joint reheat temperatures to be cooler than specified to adjust for weather, wind, and other field conditions. Coordinate the heater output and paver speed to achieve the required joint reheat temperature without visible smoke emission.

**D Measurement**

The department will measure Reheating HMA Pavement Longitudinal Joints by the linear foot, acceptably completed, as measured along each joint for each layer of asphalt placed.

**E Payment**

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 460.4110.S | Reheating HMA Pavement Longitudinal Joints | LF |

Payment is full compensation for furnishing all the work required under this bid item.
stp-460-015 (20140630)

## 27. Culvert Pipe Liners, 15 -Inch, Item 520.9700.S.01; Cleaning Culvert Pipes for Liner Verification, Item 520.9750.S.

**A Description**

This special provision describes providing and pressure grouting culvert pipe liners for circular culverts.

## B Materials

### B.1 General

Provide flow calculations at the preconstruction conference. Use contractor-proposed liner properties, the Manning's coefficients listed on the department's approved products list, and base calculations on existing culvert sizes and liner sizes the plans show. Ensure that pipes when lined have a capacity within ±5% of the original full flow capacity of the pipe.

### B.2 Flexible Pipe Liner

Use liners with a Manning's coefficient value published on the department's approved products list. Upon delivery provide manufacturer certificates of compliance certifying that the liners conform to the following:

| Pipe Type | ASTM Designation | ASTM D3350 Resin |
|---|---|---|
| **High Density Polyethylene (HDPE)** | | |
| Profile Wall Pipe | F894 | 345463C |
| Solid Wall Pipe | F714 | 345463C |
| **Polyvinylchloride (PVC)** | F949 | --- |

### B.3 Grout

Provide grout consisting of:

- One part of type I or II portland cement
- Three parts sand conforming to standard spec 501.2.5.
- Water to achieve required fluidity.

Alternatively the contractor may use an engineer-approved commercial cellular concrete grout conforming to the following:

| | | |
|---|---|---|
| Cement | ASTM C150 | Type I or II |
| Density | ASTM C495 (no oven drying) | 50 pcf min |
| Compressive Strength | ASTM C495 | 300 psi @ 28 day min<br>100 psi in 24 hours |
| Shrinkage | ASTM | 1% by volume |
| Flow | ASTM C939 | 35 sec max |

## C Construction

### C.1 General

As soon as possible after contract execution, survey existing culvert pipes to determine which culverts need cleaning in order to verify the required liner diameter and length. Notify the engineer before cleaning to confirm payment under the Cleaning Culvert Pipes for Liner Verification bid item.

Coordinate with the engineer to field verify culvert diameter and length, shape, material, and condition before ordering the liners.

Obtain easements if necessary for installing long sections of pipe.

**C.2 Excavating and Cleaning**
Before inserting the liner, clean and dry the pipe. Excavate and pump as required to remove debris and other materials that would interfere with the placement or support of the inserted liner. Dispose of and replace unserviceable endwalls as the engineer directs.

**C.3 Placing Liners**
Unload liners using slings and boom-type trucks or equivalents. Do not use chains or wire rope to handle liners and do not dump liners from the trucks when unloading.

Connect joints conforming to the manufacturer's recommendations.

**C.4 Pressure Grouting**
After the liner is in place, fill the area between the original pipe and the liner completely with grout to provide uniform space between the liner and the original pipe. Block, grout in lifts, or otherwise secure liners to prevent floatation associated while grouting.

Use a grout plant that is capable of accurately measuring, proportioning, mixing, and discharging by volume and at discharge pressures the liner manufacturer recommends. Do not exceed manufacturer-specified maximum pressures. The contractor may place grout in lifts to prevent exceeding maximum allowable pressures.

**C.4 Site Restoration**
Replace pipe sections damaged or collapsed during installation or grouting operations. Restore the grade to its original or improved cross section. Dispose of waste material.

**D Measurement**
The department will measure the Culvert Pipe Liners bid items by the linear foot measured in place for each culvert location, acceptably completed.

The department will measure Cleaning Culvert Pipes for Liner Verification as each culvert, acceptably cleaned. The department will only measure culverts the engineer approves for payment.

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 520.9700.S | Culvert Pipe Liners 15-Inch | LF |
| 520.9750.S | Cleaning Culvert Pipes for Liner Verification | EACH |

Payment for the Culvert Pipe Liners bid items is full compensation for providing pipe liners; obtaining easements; for excavation and pumping; for cleaning the existing pipe before liner installation; for pressure grouting; for replacing contractor-damaged pipe and endwalls; and for restoring the grade and disposing of waste materials.

The department will pay the contractor $150 per cubic yard for grout required in excess of 110 percent of the theoretical quantity required to fill the space between the inside diameter of the existing pipe and the outside diameter of the liner.

Payment for Cleaning Culvert Pipes for Liner Verification is full compensation for cleaning required to verify liner length and diameter; for excavation and pumping; and for disposing of waste material.

The department will pay separately for replacing unserviceable endwalls not rendered unserviceable by contractor operations under the appropriate contract endwall bid item, or absent the appropriate item as extra work.
stp-520-015 (20140630)

## 28. Temporary Pedestrian Surface Asphalt, Item 644.1410.S.

### A Description

This special provision describes providing, maintaining, and removing temporary pedestrian surface.

### B Materials

Furnish 1 1/4-inch dense graded aggregate conforming to standard spec 305.2. Furnish:

- Asphaltic surface conforming to standard spec 465.2.
- Pressure treated 2x4 framing lumber, pressure treated 3/4-inch plywood with skid resistant surface coating, and weather resistant deck screws 3-1/2-inch minimum for framing and 1-5/8-inch minimum for plywood.
- 1/4 inch minimum steel plate or commercially available prefabricated plates with skid resistant surface coating conforming to Americans with Disabilities Act Accessibility Guidelines. If placed in the roadway, must be able to handle a vehicle weight of 88,000 lbs.

### C Construction

Place, compact, and level a dense graded aggregate foundation before placing the surface.

Provide a firm, stable, and slip-resistant surface layer with vertical joints no higher than ¼ inch and horizontal joints no wider than 1/2 inch. Sheet materials up to 1 inch thick may be lapped if the edge is beveled at 45 degrees or flatter. Asphalt may also be used to ramp up to materials up to 1 inch thick. Construct conforming to the following:

- Asphalt surface a minimum of 2 inches thick compacted with compactors, tampers, or rollers.
- Framed plywood panels 4 feet wide with a skid resistant surface coating.
- Steel or prefabricated plate with a skid resistant surface coating.

Align parallel to the existing roadway grade or, if outside of a street or highway right-of-way, do not exceed 5 percent longitudinal slope. Provide cross slope of 1 to 2 percent unless the engineer approves a steeper cross slope in writing.

Maintain the surface with a 4-foot minimum clear width and the specified joint and slope requirements. Repair or reconstruct installations disturbed during construction operations. Remove and dispose of as specified in standard spec 203.3.4 when no longer required.

**D Measurement**
The department will measure temporary pedestrian surface by the square foot, acceptably completed.

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 644.1410.S | Temporary Pedestrian Surface Asphalt | SF |

Payment is full compensation for providing, maintaining, and removing temporary pedestrian surface.
stp-644-010 (20150630)

## 29. Temporary Curb Ramp, Item 644.1601.S.

**A Description**
This special provision describes providing, maintaining, and removing temporary curb ramps.

**B Materials**
Furnish materials as follows:

- Asphaltic surface conforming to standard spec 465.2.
- Engineer-approved ready mixed concrete or ancillary concrete conforming to standard spec 602.2 except no QMP is required.
- Commercially available prefabricated curb ramps conforming to Americans with Disabilities Act Accessibility Guidelines.

Furnish yellow detectable warning fields conforming to Americans with Disabilities Act Accessibility Guidelines. Use either an engineer-approved surface-applied type or cast iron from the department's approved products list.

**C Construction**
Provide and maintain temporary curb ramps, including detectable warning fields, throughout the project duration. Place and compact a dense graded aggregate foundation before placing the curb ramp, unless the curb ramp is to be placed on existing roadway surface.

Remove and dispose temporary curb ramps and associated detectable warning fields when no longer required.

**D Measurement**
The department will measure temporary curb ramps by each individual ramp, 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 |
|---|---|---|
| 644.1601.S | Temporary Curb Ramp | EACH |

Payment is full compensation for providing, maintaining, and removing temporary curb ramps.
stp-644-020 (20150630)

## 30. Removing Raised Pavement Markers, Item 646.0790.S.

**A Description**
This special provision describes removing raised pavement markers.

**B (Vacant)**

**C Construction**
Remove raised pavement markers as shown on the plans.

**D Measurement**
The department will measure Removing Raised Pavement Markers by each raised pavement marker, acceptably removed.

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 646.0790.S | Removing Raised Pavement Markers | EACH |

Payment is full compensation for removing and properly disposing of raised pavement markers.
stp-646-070 (20070904)

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

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

## B Materials

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

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

## C Construction

### C.1 General

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

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

### C.2 Groove Depth

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

### C.3 Groove Width – Longitudinal Markings

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

### C.4 Groove Position

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

### C.5 Groove Cleaning

#### C.5.1 Concrete

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

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

**C.5.2 New Asphalt**
Groove pavement five or more days after paving.

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

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

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

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

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

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

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

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

2) For the remainder counties:

   · Apply either adhesive.

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

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

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

**E Payment**

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

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

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

## 32. Pavement Marking Grooved Wet Reflective Tape 8-Inch, Item 646.0883.S.

**A Description**

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

**B Materials**

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

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

**C Construction**

**C.1 General**

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

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

**C.2 Groove Depth**

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

### C.3 Groove Width – Longitudinal Markings
Cut the groove one-inch wider than the width of the tape.

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

### C.5 Groove Cleaning
#### C.5.1 Concrete
Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with high-pressure water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, and prior to pavement marking application. The groove surface shall be clean and dry before applying the adhesive, and 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 120 psi air pressure to clean the groove.

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

Use a high-pressure air blower with at least 185 $ft^3$/min air flow and 120 psi air pressure to clean the groove.

### C.6 Tape Application
Apply the wet reflective pavement marking tape when both the air and surface temperature are 40 degrees F and rising.

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

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

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

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

2) For the remainder counties:

   · Apply either adhesive.

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

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

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

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

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

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

## 33. Pavement Marking Grooved Wet Reflective Epoxy 4-Inch, Item 646.2304.S.

**A Description**
This special provision describes furnishing, grooving, and installing wet reflective epoxy pavement marking as shown on the plans, according to standard spec 646, and as hereinafter provided.

**B Materials**

Furnish a 20 mils application of an epoxy binder pavement marking, from the Wisconsin's Approved Products List, in a grooved slot. Provide a double drop system of 5.3 pounds per gallon of wet reflective elements from Wisconsin's Approved Products List and Utah Performance beads mixture at a drop rate of 12-22 pounds per gallon.

*Replace standard spec 646.2.3 (1) with the following:*

Furnish Utah Performance beads with the following gradation:

Utah Bead Gradation

| US Mesh | Percent Passing (ASTM D1214) |
|---|---|
| 18 | 65-80 |
| 20 | |
| 25 | |
| 30 | 30-50 |
| 40 | |
| 50 | 0-5 |

Beads **shall** achieve a minimum of 275 mcd (dry reading), initial for white and 180 mcd (dry reading) for yellow.

**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 the grooved wet reflective epoxy.

Plane the grooved lines according to details in the plan. Use grooving equipment with a free-floating, independent cutting or grinding head. Plane a minimum number of passes to create a smooth groove. Remove lane line and center line pavement markings during the grooving process.

**C.2 Groove Depth**

Cut the groove to a depth of 80 mils ±10 mils from the pavement surface. The department may periodically check groove depths.

**C.4 Groove Width – Longitudinal Markings**

Cut the groove 1inch wider than the width of the pavement marking.

**C.5 Groove Position**

Position the groove edge according to Standard Detail Drawing Pavement Marking (Mainline). If necessary, groove a minimum of 4 inches from both ends of the pavement marking segment. Achieve straight alignment with the grooving equipment.

**C.6 Groove Cleaning**

**C.6.1 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 marking. Use a high-pressure air blower with at least 185 $ft^3$/min air flow and 120 psi air pressure to clean the groove.

**C. 6.2 Asphalt**

Groove pavement five 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.

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.

**D Measurement**

The department will measure Pavement Marking Grooved Wet Reflective Epoxy (width) bid items by the linear foot of line, acceptably completed.

The department will measure Pavement Marking Grooved Contrast Wet Reflective Epoxy (width) bid items by the linear foot of line, acceptably completed.

**E Payment**

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 646.2304.S | Pavement Marking Grooved Wet Reflective Epoxy 4-Inch | LF |

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the epoxy, 3M elements and beads; and for removing existing or temporary marking, if necessary.

stp-646-024 (20170227)

## 34. Ramp Closure Gates Solar 26-FT, Item 662.2026.S; Ramp Closure Gates Solar 30-FT, Item 662.2030.S; Ramp Closure Gates Solar 37-FT, Item 662.2037.S; Ramp Closure Gates Solar 40-FT, Item 662.2040.S; Ramp Closure Gate Arms Stockpile 26-FT, Item 662.3026.S; Ramp Closure Gate Arms Stockpile 30-FT, Item 662.3030.S; Ramp Closure Gate Arms Stockpile 37-FT, Item 662.3037.S; Ramp Closure Gate Arms Stockpile 40-FT, Item 662.3040.S; Ramp Closure Gate Flashers Stockpile, Item 662.4000.S.

### A Description

This special provision describes providing solar-powered freeway on-ramp closure gates on type 5 steel luminaire poles. This special provision also describes furnishing and delivering spare gate arms and flashers.

### B Materials

#### B.1 General

Provide five user manuals and a listing of vendors and contact information for each manufactured component including flasher electrical components.

The engineer may allow alternates equal to specified manufactured components. The engineer may require plan detail modifications to accommodate alternates. The engineer may accept alternate arms or mounting adaptors only if the contractor can demonstrate that the department can easily remove and replace the arms.

#### B.2 Components

Furnish type 5 steel poles designed to carry twin 15-foot luminaire arms and conforming to standard spec 657 and with dimensions for acceptable installation of the ramp gate hardware as shown on the detail. Ensure a contiguous pole by eliminating the hand hole near base of pole, thus allowing uninhibited mounting of the gate pivot assembly.

Furnish galvanized steel nuts and bolts conforming to ASTM A307 except where designated as high strength (HS), conform to ASTM A325. For the ramp closure gate locking mechanism, furnish a handle nut to fit on a 3/4-inch bolt.

Furnish grade A36 steel for the gate supports, gate pivot assembly, and associated hardware galvanized after fabrication by either a mechanical or hot-dip process. Grind welded connections, rough edges, and burrs smooth before galvanizing to ensure a finished appearance. Ensure that the galvanized coating conforms to ASTM A 153.

Provide aluminum/fiberglass gate arms of the nominal length the bid item indicates and conforming to plan dimensions. Cover gate arms on two sides with alternating red and white shop-applied type H reflective from the department's approved products list. Also provide a shear pin base that is the manufacturer’s “permanent pivot” style. Obtain components from:

B&B Roadway
15191 Hwy 243
Russellville, AL 35654
Tel: (888) 560-2060

Gate arm: model MU605

Furnish a worm gear winch with a single line vertical lift capacity of 2000 lbs. Ensure that the winch has hardened steel gears, a handgrip, permanently lubricated bearings, a reinforced arc-welded reel assembly, and mounting plate. Ensure that the winch can be mounted to the winch mount plate shown on the construction details and the handgrip can be operated without conflict with the pole or ramp gate assembly. Furnish a 2-inch outdoor rated, rot resistant polyester strap for the connection between the worm gear winch and the gate arm pivot assembly.

Furnish solar power system and batteries conforming to the following:

1. Cabinet
   The cabinet shall be manufactured of 0.125-inch sheet aluminum. Nominal cabinet dimensions shall be 26.25 inches high by 15.5 inches wide by 14.75 inches deep. The cabinet shall be a two-compartment type; the bottom compartment shall have a neoprene gasket seal so as to prevent battery gases from seeping into the top compartment. The cabinet shall have wire screened insect proof louvers on each side of both compartments for ventilation. The louvers shall be designed to not allow any rain to enter the cabinet. On the bottom of the cabinet there shall be two screened insect proof drain holes.

   The door shall be a single unit with a continuous piano hinge riveted to the door and the cabinet. The door shall incorporate a neoprene gasket which, when closed, forms a snug weather tight seal. The door lock shall be a standard police lock reinforced with a steel plat which is keyed the same as the standard traffic control cabinets.

   Each cabinet shall be equipped with the necessary rigid back wall for mounting to a traffic signal standard. The cabinet shall have a 1-inch diameter cable entry hole at each mounting location on the back.

2. Control Panel
   The control panel containing the electronics shall be mounted in the top compartment of the cabinet using bolts with wing nuts. The solar panel and battery shall be connected directly to the solar charge controller terminals. All modular components shall be easily removed for replacement or maintenance.

   The solar panels, load, and battery shall be fused.

Furnish the cabinet with a 10 position terminal block for the 12 VDC power distribution. Furnish power wire terminal strips 10 position feed-through terminal blocks UL recognized for No. 22 AWG wire through No. 16 AWG wire and UL rated for 15 amps. The terminals shall be tin-plated brass with brass clips and clamps.

3. Solar Charge Controller
   The solar charge controller shall control battery charging through pulse width, modulated, temperature compensating, constant charging algorithm. The solar charge controller shall have both a low voltage disconnect (LVD) of 11.4 VDC and a high voltage disconnect (HVD) of 15.5 VDC. A liquid crystal display (LCD) of battery voltage, solar array current, and load current shall be available with the solar charge controller. In addition, colored LEDs shall display battery state. A green LED shall indicate full charge, amber LED shall indicate half charge, and a flashing red LED shall indicate low charge. A solid glowing red LED shall indicate the load has been disconnected. A separate green LED shall indicate the battery is being charged.

   The solar charge controller shall have a load disconnect pushbutton. When the load is disconnected the button shall glow red.

   The solar charge controller shall be capable of operating in a temperature range of 40° C and +85° degrees C.

   Wire terminations to the solar charge controller shall be accomplished using Euro style terminations.

4. Solar Panel
   The solar panel shall be a 50-watt high efficiency, single crystal silicon solar cells that are laminated to glass with layers of ethylene vinyl acetate (EVA). The panel shall be self-cleaning, impact resistant, highly transmissive, tempered glass superstate. The panel module frame shall be made of extruded, polymer coated aluminum alloy or similar approved construction. The panel module junction box shall be a UV resistant, weatherproof wire termination system that handles #14 AWG to #8 AWG wiring. The minimum wattage for the system shall be determined by the supplier, with design calculations submitted with the bid.

5. Solar Panel Mount
   The solar panel mounting system shall consist entirely of non-corrosive materials, including aluminum brackets and zinc-plated hardware. The solar panel shall be mounted at angle of 60 degrees from horizontal, shall mount to a pole with a nominal diameter of 4-inches, and shall be designed for minimum of 30 pound per square foot.

6. Battery
   The battery shall be a 99-amp-hour type 31 AGM maintenance-free, deep cycle, 12 volt DC battery. It shall contain valve regulation with a self-discharge rate of 1% per month or less (at 20° C). The battery shall utilize T881 terminals. The positive terminal shall be covered with a rubber boot to protect the battery from accidental shorting. Place dielectric grease on battery terminals.

Furnish gate flasher assemblies conforming to the following:

1. A 2-conductor battery connector, rated 12 volts at 5 amps minimum.

2. A 2-amp weather resistant in-line fuse and fuse holder.

3. Wiring harness made from 6-conductor 14 AWG stranded insulated control cable.

4. A 12 V flasher controller, capable of providing LED flashers with 5% to 100% duty cycle at a one-second pulse repetition rate.

5. A 4-conductor male/female electrical connector pair, 10 amp capacity for each connection, weather resistant, and mounted to allow rapid gate arm replacement.

6. A 5-amp mercury switch with less than 3 ohms "on" resistance and a 20 to 30 degree activation angle. Mount the switch on the gate arm to activate the flashers when the gate arm is lowered more than 45 degrees from vertical.

7. Furnish red LED flashers meeting the requirements of the MUTCD and/or AREMA standards for hue and brightness.

| | |
|---|---|
| Power consumption | 0.45 amp @ 10.5 V |
| Life expectancy | 100,000 hrs |
| Directionality | 0-degree cone orthogonal to face of flasher |
| Compliance temperature | -40° C to +70° C |

Furnish electrical wires with jackets conforming to the following color scheme throughout the ramp closure gate system:

- From Solar Panel to Controller Cabinet
  - Positive = Blue
  - Negative = White
- From Controller Cabinet to Gate Arm Flashers
  - Common = White
  - Flasher Circuit #1 = Red
  - Flasher Circuit #2 = Blue

Furnish a weatherproof hardened steel padlock with a minimum 2 1/4-inch shackle height and user programmable 4-digit combination.

## C Construction

### C.1 Ramp Closure Gates

Under the Ramp Closure Gates bid items, provide ramp closure gate at the locations the plans show. Apply marine grade anti seize compound to all bolt threads and to the interface between the aluminum base and steel pole. The engineer may direct adjustment of the gate arm assembly to ensure the correct vertical and angular orientation of the completed closure gate.

Install the solar power system and battery as the plans show. The engineer may direct adjustment of the solar power unit to ensure the correct orientation to the sun.

Connect the battery to the wiring harness through the female side of a 2-terminal polarized electrical connector. Connect male side of this connector to the flasher controller and the female side of a weatherproof polarized 4-conductor electrical connector.

Attach the male side of the 4 conductor electrical connector, mercury switch, wiring harness, and the three LED flasher units to the portion of the flasher assembly mounted on the breakaway portion of the gate arm. Adjust mercury switch so that as the gate arm is lowered to a maximum of 45 degrees from the vertical, the gate flasher assembly is energized, and the LEDs begin to flash. Ensure that when the gate arm is raised to a minimum of 15 degrees from vertical, the mercury switches the gate flasher assembly off.

Install structure identification plaques in the location the plan details show.

*Specify Regional Representative for Identification Number Issuance*

### C.2 Furnishing Gate Arms

Under the Ramp Closure Gate Arms Stockpile bid items, furnish and deliver spare arms of the nominal length the bid item indicates conforming to B.2. Deliver spare gate arms to an address provided by:

*Specify Regional Representative for Coordination*

### C.3 Furnishing Flashers

Under the Ramp Closure Gate Flasher Stockpile bid item, furnish and deliver spare gate flasher assemblies conforming to B.2. Deliver spare gate arms to an address provided by:

*Specify Regional Representative for Coordination*

## D Measurement

The department will measure the Ramp Closure Gates Solar bid items as each individual installation, acceptably completed.

The department will measure the Ramp Closure Gate Arms Stockpile bid items and Ramp Closure Gate Flashers Stockpile as each individual unit, acceptably furnished and delivered.

**E Payment**

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 662.2026.S | Ramp Closure Gates Solar 26-FT | EACH |
| 662.2030.S | Ramp Closure Gates Solar 30-FT | EACH |
| 662.2037.S | Ramp Closure Gates Solar 37-FT | EACH |
| 662.2040.S | Ramp Closure Gates Solar 40-FT | EACH |
| 662.3026.S | Ramp Closure Gate Arms Stockpile 26-FT | EACH |
| 662.3030.S | Ramp Closure Gate Arms Stockpile 30-FT | EACH |
| 662.3037.S | Ramp Closure Gate Arms Stockpile 37-FT | EACH |
| 662.3040.S | Ramp Closure Gate Arms Stockpile 40-FT | EACH |
| 662.4000.S | Ramp Closure Gate Flashers Stockpile | EACH |

Payment for the Ramp Closure Gate Solar bid items is full compensation for providing ramp closure gates including support poles; for gate arm assembliesincluding guides, collars, and gate arms;for cabinets, wiring, and power converters; for structure identification plaques; for gate flashers; and for padlock.

Payment for the Ramp Closure Gate Arms Stockpile is full compensation for furnishing and delivering spare ramp closure gate arms.

Payment for the Ramp Closure Gate Flashers Stockpile is full compensation for furnishing and delivering ramp spare closure gate flasher assemblies.

stp-662-010 (20140630)

## 35. Ramp Closure Barricade Rack 3-Unit, Item 662.6030.S.

**A Description**

This special provision describes providing storage racks for barricades used to temporarily close off entrance ramps to divided highways.

**B Materials**

Furnish wooden posts conforming to standard spec 634.2.1.

Fabricate tubular steel components using structural quality 12-gauge strip steel conforming to ASTM designation A1011, grade 50 with an average minimum yield strength, after cold-forming, of 55,000 psi. The contractor may use perforated tubing.

Hot dip galvanize each tube according to ASTM A653 grade 90. Treat corner welds and cut ends with cold-galvanized organic zinc paint as manufacturer recommends.

Furnish galvanized bolts, nuts, and washers zinc-coated according to ASTM A153.

**C Construction**
Install wood posts conforming to standard spec 634.3.1 and the plan details. Fabricate and install tubular steel components as the plans show.

**D Measurement**
The department will measure the Ramp Closure Barricade Rack bid items as each individual barricade rack, acceptably completed.

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 662.6030.S | Ramp Closure Barricade Rack 3-Unit | EACH |

Payment is full compensation for providing barricade racks; for wood posts; and for galvanized tubular steel components and hardware.
stp-662-015 (20130615)

## 36. General Requirements for Electrical Work.

*Replace standard spec 651.3.3 (3) with the following:*

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

## 37. 655 Electrical Wiring

*Replace standard spec 655.5 (11) with the following:*

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

## 38. Install Conduit Into Existing Item, Item SPV.0060.01.

**A Description**
This special provision describes installing proposed conduit into an existing manhole, pull box, junction box, vault, or other structure as shown in the plans and as hereinafter provided.

**B Materials**
Conduit, as provided and paid for under other items in this contract. Backfill material, topsoil, fertilizer, seed, and mulch conforming to the requirements of pertinent provisions of the standard specifications.

**C Construction**
Carefully expose the outside of the existing structure without disturbing any existing conduits or cabling.

Drill the appropriate sized hole for the entering conduit at a location within the structure that will not disturb the existing cabling and will not hinder the installation of new cabling within the installed conduit.

Fill any void area between the drill hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure.

Carefully tamp backfill into place.

Place 4-inches of topsoil, fertilizer, seed, and mulch to restore the area. Place these restoration materials according to the requirements of the pertinent sections of the standard specifications.

**D Measurement**
The department will measure Install Conduit Into Existing Item by each individual conduit installed, acceptably completed. Up to five conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of five, or conduits entering at significantly different entry points into the existing pull box, manhole, or junction box will constitute multiple units.

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| SPV.0060.01 | Install Conduit Into Existing Item | EACH |

Payment is full compensation for drilling holes, furnishing and installing all materials, including bricks, and coarse aggregate; for excavation, bedding and backfilling, including any sand or other required materials; furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for disposal of surplus materials; and for making inspections.

## 39. Install Microwave Detector Module, 2-Port, Item SPV.0060.02.

**A Description**
This special provision describes installing a department-furnished microwave radar vehicle detector loop emulation card and making all connections necessary to make the card fully functional.

**B Materials.**
The department will furnish the loop emulation cards; the card will be Electronic Integrated Systems, Inc. (EIS) RTMS Interface Card part number RIC-2RM.

**C Construction**
Install the loop emulation card in the input file of a field cabinet. Connect the module's inputs to the associated microwave detector, and the contact closure outputs to the new or existing 170 or 2070 controller.

**D Measurement**
The department will measure Install Microwave Detector Module, 2-Port by each module acceptably completed, installed, and tested.

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| SPV.0060.02 | Install Microwave Detector Module, 2-Port | EACH |

Payment is full compensation for installing the loop emulation card; making all connections; all testing.

## 40. HMA Percent Within Limits (PWL) Test Strip, Item SPV.0060.03.

**A Description**
This special provision describes the Hot Mix Asphalt (HMA) density and volumetric testing tolerances required for an HMA test strip. An HMA test strip is required for projects constructed under HMA Percent Within Limits QMP. A test strip is required for each pavement layer. Each project is restricted to a single mix design for each mix type required (e.g., upper layer and lower layer may have different mix type specified).

**B (Vacant)**

**C Construction**
**C.1 Test Strip**
Notify the department at least 48 hours in advance of construction of the test strip. On the first day of production of each new mix design requiring a test strip, produce approximately 750 ton of HMA and cease production until the required testing is completed. Test strips shall be located in a section of the roadway to allow a representative (i.e. not a ramp or shoulder, etc.) rolling pattern.

**C.1.1 Sampling and Testing Intervals**
Laboratory testing will be conducted from a three-way split sample, with portions designated for QC, QV, and retained. Required field tests include contractor quality control (QC) and department quality verification (QV) nuclear density gauge tests and pavement coring.

During production for the test strip, HMA mixture samples shall be obtained from trucks prior to departure from the plant. Three four-way split samples shall be collected during the production of test strip material. Sampling and splitting shall be according to Appendix C: *Sampling for WisDOT PWL QMP*. These three samples shall be randomly selected from the following production intervals and will be identified by the engineer:

| Sample Number | Production Interval (tons) |
|---|---|
| 1 | 50-250 |
| 2 | 251-500 |
| 3 | 501-750 |

The engineer will identify two zones in which gauge/core correlation is to be performed. These two zones will be randomly selected within each of two density sublots of the 750 ton test strip. Test strip sublots 1 and 2 are identified as between 50-400 tons and 401-750 tons, respectively. Each zone shall consist of five locations across the mat as identified in Appendix A. The following shall be determined at each of the five locations within both zones:

- two one-minute nuclear density gauge readings for QC team*
- two one-minute nuclear density gauge readings for QV team*
- pavement core sample

*If the two readings exceed 1.0 lb/ft$^3$ of one another, a third reading shall be conducted at either orientation. In this event, all three readings shall be averaged, discard the initial of the three readings which falls farthest from the average value and then average the remaining two values to represent the location for the gauge.

Both the QV and QC teams shall have two nuclear density gauges present for correlation at the time the test strip is constructed. The above testing shall be conducted according to Appendix A: *Test Methods & Sampling for PWL QMP HMA Pavements*. All test reports shall be submitted to the department upon completion, and approved before paving resumes.

**C.1.1.1 Field Tests**

Daily standardization of gauges on reference blocks and a reference site shall be performed according to CMM 8-15. Nuclear gauge readings and pavement cores shall be used to determine nuclear gauge correlation according to Appendix A. The two readings per location per gauge shall be averaged. The readings for the five locations across the mat for each of two zones shall be provided to the engineer. The engineer will analyze the readings of each gauge relative to the densities of the cores taken at each location. The engineer will determine the average difference between the nuclear gauge density readings and the measured core densities to be used as a constant offset value. This offset is to be used to adjust raw density readings for the specific gauge for the remainder of the project and shall appear on the density data sheet along with gauge and project identification. An offset is specific to the mix and layer, and therefore a separate value shall be determined for each layer of each mix of the project. This constitutes correlation of that individual gauge. Each team must have two gauges correlated at the time of the test strip. Any data collected by a team without an acceptable gauge (i.e., correlated during test strip) will not be accepted.

The contractor is responsible for coring of the pavement. Coring and filling of core holes must be approved by the engineer. The QV team is responsible for the labeling and safe transport of the cores from the field to the QC laboratory. Testing of cores shall be conducted by the contractor and witnessed by department personnel. The contractor is responsible for drying the cores following testing. The department will take possession of cores following initial testing and will be responsible for any verification testing.

Each core 100 or 150 mm (4 or 6 inches) in diameter shall be taken at locations identified in Section C.1.1 [Appropriate core diameter shall be selected based on layer thickness and shall be decided at the prepave meeting and remain consistent for the duration of the project.] Each random core shall be full thickness of the layer being placed. Thoroughly dry cores obtained from the mat according to ASTM D 7227 prior to using specimens for in-place density determination according to AASHTO T 166.

Fill all core holes with non-shrink grout or HMA. When using rapid hardening mortar or concrete, remove all water from the core holes prior to filling. Mix the mortar or concrete in a separate container prior to placement in the hole. If HMA is used, fill all core holes with hot-mix matching that day's production mix type at that day's compaction temperature +/- 20F. The core holes shall be dry and coated with tack before filling, filled with a minimum of two layers (single layer allowed for pavement layers $\leq$ 2 inches in thickness), and compacted with a Marshall hammer or similar tamping device using approximately 50 blows per layer. The finished surface shall be flush with the pavement surface. Any deviation in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the layer thickness and replacement.

All laboratory and field testing associated with the test strip shall be completed the same day as paving of the test strip. All test reports shall be submitted to the department upon completion, and approved before paving resumes. The department will notify the contractor by the end of the day regarding approval to proceed with paving beyond the test strip.

**C.1.1.2 Laboratory Tests**

Material shall be collected from trucks at the plant according to the frequency described in section C.1.1 above. Sample sizes shall be consistent with the minimums for a three-way split as shown below:

| Mixture NMAS | Sample Size |
|---|---|
| $\leq$ 12.5mm (1/2") | 105 lb |
| 19.0mm - 25.0mm (3/4" – 1") | 150 lb |
| $\geq$ 37.5mm ( 1-1/2") | 240 lb |

Bulk specific gravities shall be determined for cores according to AASHTO T 166. The bulk specific gravity values determined from field cores shall be used to calculate a correction factor (i.e., offset) for the QC and QV nuclear density gauges to be used throughout the remainder of the project. QC and QV teams may wish to scan with additional gauges at the locations detailed in C.1.1 above, as only gauges used during the test strip correlation phase will be allowed on the remainder of the project.

**C.2 Acceptance**

Conform to the following limits based on individual QC and QV test results (tolerances based on initial JMF/mix design):

| ITEM | CONFORMANCE LIMITS |
|---|---|
| Percent passing given sieve: | |
| 37.5-mm | +/- 8.0 |
| 25.0-mm | +/- 8.0 |
| 19.0-mm | +/- 7.5 |
| 12.5-mm | +/- 7.5 |
| 9.5-mm | +/- 7.5 |
| 2.36-mm | +/- 7.0 |
| 75-µm | +/- 3.0 |
| Asphaltic content in percent | - 0.5 |
| Air Voids | -1.0 and +2.0 |
| VMA in percent[1] | - 1.0 |
| Maximum specific gravity | +/- 0.024 |

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

QV test results will be determined for air voids and VMA, Gmm, and Gmb, and AC Content.

Compact all layers of test strip HMA mixture to the applicable density shown in the following table:

| | MIXTURE TYPE | |
|---|---|---|
| LAYER | LT and MT | HT |
| LOWER | 93.0[1] | 93.0[2] |
| UPPER | 93.0 | 93.0 |

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

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

Differences between the QC and QV split sample test results are acceptably identified by conducting a paired t-test according to the WisDOT PWL Analysis Template.

If QC and QV test results do not correlate as determined by the paired t-test, the retained split sample will be tested by the bureau's AASHTO accredited laboratory and certified personnel as a referee test. Any referee test results will be used for subsequent calculations and material acceptance. Additional investigation shall be conducted to identify the source of the difference between QC and QV data. QV or referee data will be used to determine material acceptance and pay.

Nuclear density gauges are acceptable for use on the project only if correlation is completed for that gauge during the time of the test strip and the department issues documentation of acceptance stating the correlation offset value specific to the gauge and the mix design. The documentation must accompany the gauge any time the gauge appears on the project and the department may confirm at any time that the offset value being used matches that documented.

The core densities collected from the 10 locations of the test strip and the QV results from the three split samples will be used to determine material acceptance and pay. The PWL value is calculated according to Appendix A.

A PWL value for air voids and density shall be calculated after completion of the testing. An acceptable test strip is defined as the individual PWL values for air voids and density are both above 75 or the average of the two are above 80. Full production may not continue until an acceptable test strip has been completed. If a PWL value on the test strip is below 50, the material is considered nonconforming and the test strip is unacceptable. If the material is allowed to remain in place, a second test strip shall be constructed. If the material is determined to be removed and replaced, a new test strip will replace the previous one at no additional cost to the department. If a PWL value is between 50 and 75, the material is considered conforming, although a second test strip will need to be constructed. If the second test strip is not acceptable as defined above, it shall be removed and replaced. A maximum of two test strips may be left in place on the project. Additional guidance on test strip and material acceptance is found in Appendix A.

| PWL Value | Test Strip and Material Acceptance |
|---|---|
| $\geq$75 (individual) and 80 (combined) | Material conforms, Test Strip is acceptable |
| 50 $\leq$ PWL < 75 | Material conforms, Test Strip is not acceptable* |
| < 50 | Material nonconforming, may be removed and replaced, Test Strip not acceptable* |

* A maximum of two test strips may be left in place on the project.

**D Measurement**

The department will measure HMA Percent Within Limits (PWL) Test Strip as each unit of work, acceptably completed as passing the required air void, VMA, asphalt content,

gradation, and density tests for a Test Strip only. Material quantities shall be determined according to standard spec 450.4 and detailed here within.

**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 | HMA Percent Within Limits (PWL) Test Strip | EACH |

Payment for HMA Percent Within Limits (PWL) Test Strip is full compensation for providing HMA mixture designs; for preparing foundation; for volumetric and density testing and aggregate source testing; for asphalt binder from recycled sources, and for warm mix asphalt additives or processes. Acceptable HMA mixture placed on the project as part of the test strip will be compensated by the appropriate HMA Pavement bid item.

This item is intended to compensate the contractor for the construction of the test strip for projects paved under the HMA Pavement Percent Within Limits QMP article.

Pay adjustments will be calculated using a unit price of 65 dollars per ton of HMA pavement. The department will pay for measured quantities of mix based on the unit price multiplied by the following pay adjustment calculated according to Appendix A:

**PAY ADJUSTMENT FOR HMA PAVEMENT AIR VOIDS & DENSITY**

| *PERCENT WITHIN LIMITS (PWL)* | *PAYMENT FACTOR, PF (percent of contract price)* |
|---|---|
| > 90 to 100 | PF = ((PWL – 90) * 0.4) + 100 |
| ≥ 50 to 90 | (PWL * 0.5) + 55 |
| <50 | 50%[1] |

where,

PF is calculated per air voids and density, denoted $PF_{air\ voids}$ & $PF_{density}$

[1] Any material resulting in PWL value of 50 or less shall be removed and replaced, unless the engineer allows for such material to remain in place. In the event the material remains in place, it will be paid at 50% of the above stated unit price of 65 dollars per ton of HMA pavement.

For air voids, PWL values will be calculated using lower and upper specification limits of 2.0 and 4.3 percent, respectively. Lower specification limits for density will be according to Table 460-3. Pay adjustment will be determined for an acceptably completed test strip and will be computed as shown in the following equation.

Pay Adjustment = (PF-100)/100 x (WP) x (tonnage) x (unit price)

The following weighted percentage (WP) values will be used for the corresponding parameter:

| Parameter | WP |
|---|---|
| Air Voids | 0.5 |
| Density | 0.5 |

Individual Pay Factors for each air voids ($PF_{air\ voids}$) and density ($PF_{density}$) will be determined. $PF_{air\ voids}$ will be multiplied by the total tonnage produced, and $PF_{density}$ will be multiplied by the tonnage used to pave the mainline only (i.e., excluding shoulder) as calculated according to CMM 8-15.

The department will pay incentive for air voids and density under the following bid items:

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 460.2005 | Incentive Density PWL HMA Pavement | DOL |
| 460.2010 | Incentive Air Voids HMA Pavement | DOL |

The department will administer disincentives under the Disincentive Density HMA Pavement and the Disincentive Air Voids HMA Pavement administrative items.

bts-PWL Test Strip (20161215)

## 41. Section Corner Monuments Special, Item SPV.0060.04.

**A Description**

Coordinate with Southeast Wisconsin Regional Planning Commission (SEWRPC) for the perpetuation and replacement of a section corner monument.

**B Materials**

SEWRPC will provide a pre-cast monument or brass disk for the section corner.

Furnish base aggregate dense materials that conform to standard spec 305 and possibly concrete depending on the road surface.

**C Construction**

SEWRPC will perpetuate existing section corner landmarks. The engineer will contact SEWRPC at 262-547-6721 at least two weeks before starting construction operations or the preconstruction meeting to allow for section corner perpetuation. Contractor is responsible for removal of the existing monument. Contractor is responsible for providing a backfilled 3 to 4 foot deep hole where existing monument was removed. If roadway surface is concrete, contractor will be responsible to provide either a 2 foot by 2 foot "box out" or an 8 inch core hole to facilitate setting the new monument. The contractor is responsible to coordinate with SEWRPC and the WisDOT Project Manager throughout the perpetuation and replacement process.

**Contact Information:**

Attn: John Washburn
Southeastern Wisconsin Regional Planning Commission
W239 N1812 Rockwood Drive
P.O. Box 1607
Waukesha, WI 53187-1607
Phone (262) 547-6721
Fax (262) 547-1103
E-mail: sewrpc@sewrpc.org

**D Measurement**

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

**E Payment**

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| SPV.0060.04 | Section Corner Monuments Special | EACH |

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

621-SER1 (20080714)

## 42. Remove Pavement Marking Grooved Tape, Item SPV.0090.01.

**A Description**

This special provision describes removing grooved wet reflective tape according to spec 646.3.4 and as herein provided.

**B Materials**

Provide necessary materials to remove the marking completely.

**C Construction**

Remove the markings completely.

**D Measurement**

The department will measure Remove Pavement Marking Grooved Tape for complete removal by the linear foot, acceptably completed.

**E Payment**

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| SPV.0090.01 | Remove Pavement Marking Grooved Tape | LF |

Payment is full compensation for removing pavement marking.

## 43. Remove Loop Detector Wire and Lead-in Cable STH 16 WB Ramps and CTH JJ, Item SPV.0105.01; STH 16 EB Ramps & STH 83, Item SPV.0105.02.

**A Description**

This special provision describes removing loop detector wire and lead-in cable at STH 16 WB Ramps & CTH JJ and STH 16 EB Ramps & STH 83. 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.0105.01 | Remove Loop Detector Wire and Lead in Cable, STH 16 WB Ramps & CTH JJ | LS |
| SPV.0105.02 | Remove Loop Detector Wire and Lead in Cable, STH 16 EB Ramps & CTH 83 | LS |

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

## 44. Milling And Removing Temporary Joint, Item SPV.0105.03.

### A Description

This special provision describes the milling and removing of the temporary HMA wedge joint and any other temporary longitudinal or transverse joints, including sweeping and cleaning of the affected area prior to the abutting pavement placement.

### B (Vacant)

### C Construction

Immediately prior to the placement of the adjoining lane, mill any temporary wedge joint to a true line with a face perpendicular to the surface of the existing asphaltic surface pavement.

Immediately prior to continuation of paving operations, mill any temporary transverse joint to a true line with a face perpendicular to the surface of the existing asphaltic surface pavement.

The contractor becomes the owner of the removed asphaltic pavement and is responsible for the disposal as specified for disposing of materials under standard spec 204.3.1.3.

### D Measurement

The department will measure Milling And Removing Temporary Joint as a single lump sum unit of work for all wedge joints, acceptably removed.

### E Payment

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| SPV.0105.03 | Milling And Removing Temporary Joint | LS |

Payment is full compensation for milling, removing, sweeping, cleaning, and disposing of materials.

## 45. Resin Binder High Friction Surface Treatment, Item SPV.0180.02.

### A Description

This special provision describes providing a high friction surface treatment (HFST) composed of aggregate in a resin binder on HMA or concrete pavements.

### B Materials

#### B.1 Resin Binder

Supply a two-part thermosetting resin binder which is compatible with the pavement type, bonds to the pavement surface, holds the aggregate firmly in place in a broad range of climates including below-freezing temperatures, and meets the requirements specified in Table 1. Supply a primer if recommended by the resin binder manufacturer.

Table 1. Resin Binder Properties

| Property | Requirements | Test Method* |
|---|---|---|
| Viscosity | 7 – 30 poises | ASTM D2556<br>1-pint specimen |
| Gel Time | 10-minute minimum | ASTM C881<br>60g mass |
| Ultimate Tensile Strength | 2,000 – 5,000 psi @ 7 days | ASTM D638<br>Type 1 specimen |
| Elongation at Break | 30% - 70% @ 7 days | ASTM D638<br>Type 1 specimen |
| Compressive Strength | ≥ 1000 psi @ 3 hrs and<br>≥ 5000 psi @ 24 hours | ASTM D695** |
| Water Absorption | ≤ 1.0 % @ 24-hr | ASTM D570<br>24-hr immersion |
| Shore D Hardness | 60 – 80 @ 7 days | ASTM D2240***<br>Type 1 precision, Type D method |
| Cure Rate | ≤ 3 hours<br>(Dry Through Time) | ASTM D1640<br>50-55 wet mil thickness*** |
| Adhesive Strength | 250 psi @ 24 hours or 100% substrate failure | ASTM C1583*** |

* Prepare samples per manufacturer's recommendation; cure all specimens at 73 ± 2° F and at 50 ± 2° F; and test all specimens at 73 ± 2° F

** 2" x 2" cubes made of 2.75 parts of 20-30 mesh sand to 1 part mixed resin binder; use plastic inserts in oversized molds to produce 2" cubes

*** Conduct testing on applicable pavement type

## B.2 Aggregate

Furnish calcined bauxite aggregate that is fractured or angular in shape; resistant to polishing and crushing; clean and free of surface moisture; free from silt, clay, asphalt, or other organic materials; compatible with the resin binder; and meet the properties and gradation requirements in Tables 2 and 3. Check with resin binder manufacturer for any compatibility requirements or concerns.

**Table 2. Aggregate Properties**

| Property | Requirements | Test Method |
|---|---|---|
| Moisture Content | ≤ 0.2% | AASHTO T 255 |
| Fine Aggregate Angularity | ≥ 45% | AASHTO T 304, Method A |
| Micro-Deval | ≤ 15% loss | ASTM D7428 |
| LA Wear | ≤ 10% loss @ 100 revolutions and ≤ 25% loss @ 500 revolutions | AASHTO T 96 |
| Freeze-Thaw Soundness | ≤ 9% loss @ 50, 16, or 25 cycles using Procedure A, B, or C, respectively | AASHTO T 103 |

**Table 3. Aggregate Gradation (AASHTO T27)**

| Sieve Size | % Passing by Weight |
|---|---|
| No. 4 | 100 |
| No. 6 | 95 |
| No. 16 | 0-5 |
| No. 30 | 0-1 |

### B.3 Approval of High Friction Surface Treatment

A minimum of 20 working days before applying HFST, submit product data sheets and specifications from the manufacturer, and a certified test report from an independent laboratory verifying that the resin binder and the calcined bauxite aggregate meet all the requirements specified in Tables 1, 2 and 3. Documents must be dated within three years.

If resin binder has not been previously used in Wisconsin, also submit a list of at least five reference projects where the resin binder has been used for similar applications and in locations that have similar climatic conditions as Wisconsin. Supply a description of the projects along with contact information of the facility owner.

If the engineer requests, provide samples of the resin binder and aggregate for department testing before applying HFST.

## C Construction

### General

The contractor will provide documentation showing HFST application experience from at least three previous projects completed for WisDOT or other agencies.

Conduct a meeting with the resin binder manufacturer representatives before applying HFST to establish procedures for maintaining optimum working conditions and coordination of the work. Submit recommended application procedures, including quality control practices, to the engineer for approval. Ensure that a resin binder manufacturer representative is on site to provide technical assistance and quality assurance during surface preparation and for application of HFST.

Ensure that the resin binder components maintain their original properties during storage and handling. Store all aggregate in a dry environment and protect from contaminants on the job site.

### C.1 Pavement Surface Preparation

#### C.1.1 Pavement Surface Repair

Remove visibly unsound or disintegrated areas of the pavement surface as the plans show or the engineer directs.

Check with resin binder manufacturer to ensure that products used for pavement repairs or patches are compatible with the resin HFST. Ensure that any new concrete or repairs are fully cured before placing the HFST.

### C.1.2 Surface Preparation

Cover and protect utilities, drainage structures, expansion joints on bridge decks, and other structures within or adjacent to the application location to prevent materials from adhering to or entering those structures.

Remove pavement markings that are within the treatment area. Cover existing pavement markings adjacent to the application if they are to remain in place.

Seal all joints and cracks, or any portion of cracks that are greater than 1/4 inch wide, with a joint sealant conforming to ASTM D6690. Apply sealant flush with, or just below, the pavement surface. Do not overfill and ensure excess joint sealant is not visible on the pavement surface.

After all pavement repairs or patches have completely cured, and no more than 24 hours before HFST application, prepare a concrete pavement surface by shot blasting to roughen the surface texture. Ensure the pavement surface has no grease, oil, curing compound, loosely bonded mortar, pavement marking, or other foreign matter resting on the pavement surface.

Completely remove any grease, oil, pavement marking, or other foreign matter resting on an HMA pavement surface that could prevent proper bonding of the resin binder by shot blasting. Shot blast entire HMA pavement surfaces that are less than 30 days old prior to cleaning and installing HFST.

Sufficiently clean HMA and concrete pavement surfaces by vacuum-sweeping and blowing, with oil-free compressed air, just before applying HFST. Compressors must be equipped with functioning oil/water separators. Cleaning must be done the same day that HFST will be applied. Ensure the surface is clean, completely dry, and free of all dust, oil, debris and other material that might interfere with the bond between the resin binder and the existing pavement surface.

If the engineer requires additional verification of adequate surface preparation of the pavement, test the bond strength according to ASTM C1583. The surface is acceptable if the tensile bond strength is greater than or equal to 250 psi, or failure is in the substrate. Repeat shot blasting, cleaning, and testing, if needed, until passing test results are obtained or the surface is acceptable to the engineer.

Keep vehicles and unnecessary equipment off the cleaned surface; only allow HFST application equipment on the clean surface. Apply HFST as soon as possible after pavement surface preparations are completed.

Abide by the established quality control practices and adhere to any additional manufacturer recommendations for surface preparation. Request that the engineer inspect and approve the pavement surface immediately prior to placing the HFST.

## C.2 Application of the HFST

Do not apply the HFST if any of the following exists:

- Pavement surface is wet, damp, or has received rainfall in the previous 24 hours.
- Pavement surface is not sufficiently clean.
- Ambient air or pavement surface temperature is below 50° F or below the manufacturer's recommendations
- If the anticipated weather conditions would prevent adequate curing of the HFST.
- Rain is predicted before HFST completion or proper cure is achieved.
- Pavement preparation is inadequate or didn't pass pull-off test.

Close treatment areas to traffic until HFST is completely cured and pavement surface has been vacuum-swept.

Construct HFST to the full width of the existing pavement surface, or as the plans show or engineer directs. Extend the HFST application 6 feet into the shoulders. Apply as a single layer 1/8 inch to 1/4 inch thick.

Apply a primer to the pavement surface if recommended by the resin binder manufacturer, and according to their application recommendations. Abide by the established quality control practices and adhere to any additional manufacturer recommendations for HFST application.

Blend and mix the resin binder components at the manufacturer's specified ratio using equipment capable of providing the desired results.

Apply the resin binder uniformly over the pavement surface manually or with automated equipment at a uniform thickness of 50-65 mils (25-32 ft2/gal). Use enough resin to cover the pavement surface and sufficiently embed half the thickness of the aggregate; do not apply so much that it covers the aggregate and creates a slick surface. Adjust application rate, as needed, based on the pavement surface type, profile, and condition.

If using automated equipment, ensure that the equipment features positive displacement, volumetric metering, and is capable of storing, mixing, heating, monitoring, and distributing the binder components at the proper mix ratio. Adjust the pressure and the speed of the equipment to achieve the proper application thickness. If applying the binder by hand, use a serrated edged squeegee to spread the resin binder and provide uniform coverage at the proper thickness.

Do not contaminate the wet binder or allow the binder material to separate or cure, and impair bonding of the aggregate.

Immediately after applying the resin binder, distribute a sufficient quantity of dry calcined bauxite aggregate to completely cover the resin binder by hand broadcasting or by using a standard chip spreader or equivalent machine. Ensure aggregate is placed within 5 minutes of the resin binder placement, before it begins to cure. When broadcasting, sprinkle or drop the aggregate onto the resin binder vertically. Do not distribute aggregate in a way that will

cause it to roll in the resin binder before coming to a rest; do not push the aggregate into position with a broom or any other hand tool. If using a chip spreader, the machine shall follow closely behind the crew or equipment applying the resin binder. Immediately cover any visible wet or bare spots, or areas with excessive binder, with additional calcined bauxite aggregate before the resin binder begins to set.

Allow the HFST to properly cure, adhering to manufacturer recommendations for minimum cure times at applicable temperatures.

After the HFST is fully cured, remove excess loose surface aggregate by sweeping, blowing, or vacuuming. Do not tear or otherwise damage the surface. Excess calcined bauxite aggregate that is recovered by a vacuum sweeper can be reused if clean, uncontaminated and dry. Remove and replace damaged areas or areas with excess or insufficient aggregate coverage. Clean expansion joints, utilities, and drainage structures of all debris before opening to traffic.

Additionally, within 3 to 7 days after opening to traffic, vacuum sweep the pavement surface to remove loosened aggregate from the high friction surface area, the shoulders, and any other areas within and immediately adjacent to the HFST site.

**D Measurement**

The department will measure Resin Binder High Friction Surface Treatment by the square yard, acceptably completed.

**E Payment**

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| SPV.0180.01 | Resin Binder High Friction Surface Treatment | SY |

Payment for Resin Binder High Friction Surface Treatment is full compensation for testing materials; for preparing the pavement surface; for providing the HFST; for cleanup; and for vacuum sweeping and disposing of excess material after the completion and again 3 to 7 days after completion.

The department will pay for pavement repairs, joint and crack sealing, removing pavement markings, and traffic control separately under other contract bid items or, absent the appropriate bid items, as extra work.

## 46. Joint and Crack Repair, Item SPV.0195.01.

**A Description**

This special provision describes milling existing asphaltic pavement, removing any loose or spalled concrete and asphaltic patching, cleaning the joints and cracks, and filling with asphaltic material as shown on the plans and as hereinafter provided.

**B Materials**
Use HMA Pavement 4 MT 58-28-S to fill joints and cracks that is in conformance to standard spec 460.2.

**C Construction**
Mill existing pavement, clean out all joints and cracks, place asphaltic tack coat, and fill voids with HMA Pavement 4 MT 58-28-S. The contractor shall use a concrete cutting wheel that is capable of removing any loose or spalled concrete and asphaltic patching in one or two passes of the machine.

Place one foot of Temporary Pavement Marking Removable Tape 4-Inch every 100 feet, 6 inches right of lane lines to avoid placement of permanent pavement marking.

**D Measurement**
The department will measure Joint and Crack Repair by the Ton of HMA Pavement 4 MT 58-28-S used to fill longitudinal joints and cracks, acceptably repaired.

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| SPV.0195.01 | Joint and Crack Repair | TON |

Payment shall be full compensation for milling existing asphaltic pavement; removing and disposing of all loose or spalled concrete and asphaltic patching; for cleaning joints and cracks; for furnishing HMA Pavement 4 MT 58-28-S; for filling the joints and cracks; for placing temporary pavement marking tape.

Tack Coat will be paid for at the contract unit price under the respective asphaltic item.

**ADDITIONAL SPECIAL PROVISION 1 (ASP 1)**
**FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS)**
**PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS**

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including "pipeline" activities. The core programs includes: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

***TrANS*** is an employment program originally established in 1995 in Southeastern Wisconsin. Currently TrANS has expanded to include TrANS program locations to serve contractors in Southeast (Milwaukee and surrounding counties), Southcentral (Dane County and surrounding counties including Rock County), and most Northeastern Wisconsin counties from locations in Keshena, Rhinelander and surrounding far Northern areas. TrANS attempts to meet contractor's needs in other geographic locations as possible. It is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities and non-minorities as laborers and apprentices in the highway skilled trades. These candidate preparation and contractor coordination services are provided by community based organizations. For a list of the TrANS Coordinators contact the Disadvantaged Business Enterprise Office at (414) 438-4583 in Milwaukee or (608) 266-6961 in Madison. These services are provided to you at no cost.

## *I. BASIC CONCEPTS*

Training reimbursements to employing contractors for new placements, rehires or promotions to apprentice of TrANS Program graduates will be made as follows:

1) **On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate.** At the rate of $5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.

   Eligibility and Duration: To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.

   Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 12 *(number)* TrANS Graduate(s) be utilized on this contract.

2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of $5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).

Eligibility and Duration: To the employing contractor, for the length of time the TrANS graduate is in apprentice status.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __5__ *(number)* TrANS Apprentice(s) be utilized on this contract.

3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.

4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.

5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

## *I. RATIONALE AND SPECIAL NOTE*

The $5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the $5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

NOTE: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

## *II. IMPLEMENTATION*

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-

OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

## IV. *TRANS TRAINING*

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

## V. APPRENTICESHIP TRAINING

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

(1) To increase the overall effectiveness of the State highway agencies' approved training programs.
(2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b*)* (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a*)* (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

# ADDITIONAL SPECIAL PROVISION 3

## DISADVANTAGED BUSINESS ENTERPRISE [DBE] PROGRAM IMPLEMENTATION

## 1. Description

a. The federal DBE program requirements outlined in the Code of Federal Regulations at 49 CFR Part 26 apply to this Wisconsin Department of Transportation contract. WisDOT is a recipient of federal funds and this contract includes federal funds. United States Department of Transportation Federal DBE Program requires the following provisions:

(1) Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE regulations will be considered a material breach of contract. This is non-negotiable. If a contractor fails to carry out the DBE program and Title VI nondiscrimination requirements of its contracts, the following sanctions will be assessed depending upon the facts, reasoning, severity and remedial efforts of the contractor: termination of contract, withholding payment, assessment of monetary sanctions, assessment of liquidated damages and/or suspension/debarment proceedings that may result in the disqualification of the contractor from bidding for a designated period of time.

(2) The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains the federal fund recipient's [DOT] written consent. Unless [WisDOT] consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

b. The Wisconsin Department of Transportation [WisDOT] is committed to the compliant administration of the DBE Program. Each WisDOT Secretary affirms this commitment with his/her signed assurance. http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/policy-statement.pdf

(1) The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts. Under the contract, the contractor agrees to provide the assistance to participating DBE's in the following areas:
   i. Produce accurate and complete quotes.
   ii. Understand highway plans applicable to their work.
   iii. Understand specifications and contract requirements applicable to their work.
   iv. Understand contracting reporting requirements.

(2) Wisconsin DOT identifies the assigned DBE goal in its contract advertisements and posts the contract DBE goal on the cover of the bidding proposal. The contractor can meet the assigned, specified contract DBE goal by subcontracting work to a DBE or by procuring services or materials from a DBE. The department calculates the DBE participation as the dollar value of DBE participation included in the bid expressed as a percentage of the total contract bid amount.

(3) For more comprehensive information on the disadvantaged business program, visit the department's Civil Rights and Compliance Section website at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx

## 2. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

a. **Bid Percentage:** The DBE percentage indicated in the bidding proposal at the time of bid.

b. **DBE:** A small business certified as disadvantaged business enterprise (DBE) under the federal DBE program and included on the Wisconsin UCP DBE Directory deemed ready, willing and able.

c. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.

d. **Manufacturer:** A firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract.

e. **Supplier:** A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment required under the contract are bought, kept in stock, and regularly sold or leased to the public.

f. **Voluntary Achievement:** The amount of DBE participation achieved and reported in the contract in excess of the assigned goal.

## 3. DBE Percentage Required at Bid Submission

Indicate the bid percentage (i.e. 0% through 100%) of DBE participation on the completed bidding proposal. For electronic submittals, show the percentage in the miscellaneous data folder, Item 3, DBE Percent. For paper submittals, show the percentage on the sheet included after the schedule of items. By submission of the bid, the bidder contractually commits to DBE participation at or above the bid percentage, or certifies that they have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, and that the bid percentage is reflective of these good faith efforts. The bid percentage should demonstrate the efforts of the prime contractor prior to bid. If the bidder does not indicate the bid percentage of DBE participation on the completed bidding proposal, the department will consider the bid irregular and may reject the bid.

## 4. WisDOT Interpretation of Federal DBE Program Provision

Prime contractors must utilize the specific DBEs listed to perform the work and/or supply the materials for which each is listed on the Commitment to Subcontract to DBE Form [DT1506] and approved by WisDOT's DBE office to execute its contract. The approved Commitment to Subcontract to DBE Form [DT1506] becomes a contract document/record.

a. **Department's DBE Evaluation Process**
WisDOT evaluates DBE using the Commitment to Subcontract to DBE, payments to subcontractors and contract documentation. The prime contractor shall list the specific DBE certified firms and items of work s/he intends to use toward the fulfillment of the assigned DBE contract goal. The prime contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved Form DT1506.

b. **Documentation Submittal**
The contractor is to identify, by name, the DBE firms whose utilization is intended to satisfy this provision, the items of work of the DBE subcontract or supply agreement and the dollar value of those items of work by completing the Commitment to Subcontract to DBE Form [DT1506]. Effective January 1, 2017, the contractor will be required to submit the documentation within 5 business days after bid opening. All necessary supporting documentation including Attachment 'A' forms and/or Good Faith Efforts Form

[DT1202] must be submitted no later than 2 business days from contractor's initial submission of the DT 1506. The contractor must provide a signed Attachment 'A' form to the DBE office within the time limit in order to receive authorization for contract execution; the DBE office reserves the right accept alternate documentation in lieu of the signed form in extenuating circumstances. Documentation must be submitted to the DBE Office by email at DBE_Alert@dot.wi.gov (DBE_Alert@dot.wi.gov) or by postal mail ATTN: DBE Office, PO Box 7965, Madison, WI 53707-7965.

(1) **Bidder Meets DBE Goal**
If the bidder indicates that the contract DBE goal is met, after award and before execution, the department will evaluate the Commitment to Subcontract to DBE Form DT1506 and attachment A(s) to verify the actual DBE percentage calculation. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

(2) **Bidder Does Not Meet DBE Goal**

i. If the bidder indicates a bid percentage on the Commitment to Subcontract to DBE Form [DT1506] that does not meet the contract DBE goal, the bidder must submit a Good Faith Efforts Form [DT1202] and supporting documentation. After award and before execution, the department will evaluate the bidder's DBE commitment and consider the bidder's good faith efforts submission.

ii. The department will evaluate the bidder's good faith effort request and notify the bidder of one of the following:

(a) If the department grants a good faith efforts, the bid is eligible for contract execution with respect to DBE commitment.

(b) If the department rejects the good faith efforts request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith efforts request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

c. **Bidder Fails to Submit Documentation**
If the contractor fails to furnish the Commitment to Subcontract to DBE Form [DT1506] within the specified time, the department may cancel the award. Delay in fulfilling this requirement is not a cause for extension of the contract time and shall not be used as a tool to delay execution.

## 5. Department's Criteria for Good Faith Effort

Appendix A of 49 CFR Part 26, is the guiding regulation concerning good faith efforts. However, the federal regulations do not explicitly define "good faith" but states that bidder must actively and aggressively attempt to meet the goal. The federal regulations are general and do not include every factor or effort that can be considered. As a result, each state must establish its own processes and consider the factors established in its own practices to create a process for making a determination of adequate good faith. WisDOT evaluates good faith on a contract basis just as each contract award is evaluated individually.

The department will only approve a contractor's good faith efforts if the bidder has made the effort, given the relevant circumstances under the contract that a bidder actively and aggressively seeking to meet the goal would make. The department will evaluate the bidder's good faith effort to determine whether a good faith efforts will be granted. The bidder must demonstrate, on the DT1202 that they have aggressively solicited DBE participation in an attempt to meet the contract DBE goal and attaining the stated DBE goal is not feasible.

a. The department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.

b. Prime Contractors should:
   (1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use the Civil Rights & Compliance System [CRCS] and related WisDOT- approved DBE outreach tools, including the Bid Express Small Business Network, to foster DBE participation on all applicable contracts.
   (2) Prime contractors may request assistance with DBE outreach and follow-up by contacting the department's DBE Support Services Office by phone or email request at least 14 days prior to the bid letting date. Requesting assistance with outreach is not a decisive factor in the review Good faith effort evaluation. Phone numbers are 414-438-4584 and/or 414-659-0487; Fax: 414-438-5392; E-mail: DOTDBESupportServices@dot.wi.gov.
   (3) Request quotes by identifying potential items to subcontract and solicit. Prime contractors are strongly encouraged to include in their initial contacts a single page including a detailed list of items for which they are accepting quotes, by project, within a letting. *See attached sample entitled "Sample Contractor Solicitation Letter" in Appendix A*. Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, as required by federal rules. In some cases, it might be appropriate to use DBE's to do work in a prime contractor's area of specialization.
      i. Solicit quotes from certified DBE firms who match 'possible items to subcontract' using all reasonable and available means. Additionally, forward copies of solicitations highlighting the work areas for which you are seeking quotes to DOTDBESupportServices@dot.wi.gov.
      ii. SBN is the preferred outreach tool. https://www.bidx.com/wi/main. Other acceptable means include postal mail, email, fax, phone call.
         (a) Primes must ask DBE firms for a response in their solicitations. See *Sample Contractors Solicitation Letter* in Appendix. This letter can be included as an attachment to the SBN sub-quote request.
         (b) Solicit quotes at least 10 calendar days prior to the letting date, at least two Fridays before the letting, to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking if they need help organizing their quote, assistance confirming equipment needs, or other assistance supporting their submission of a competitive quote for their services.
         (c) Second solicitation should take place within 5 calendar days. Email and SBN are the preferred delivery of the follow-up solicitation.
      iii. Upon request, provide interested DBE firms with adequate information about plans, specifications and the requirements of the contract by letter, information session, email, phone call and/or referral.
      iv. When potential exists, the contractor should advise interested DBE firms on how to obtain bonding, line of credit or insurance if requested.
      v. Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:
         (a) Email to all prospective DBE firms in relevant work areas.
         (b) Phone call log to DBE firms who express interest via written response or call.
         (c) Fax/letter confirmation
         (d) Signed copy of Bid Express SBN Record of Subcontractor Outreach Effort.

c. Evaluate DBE quotes Documentation is critical if a prime does not utilize the DBE firm's quote for any reason.
   (1) Evaluate DBE firm's capability to perform 'possible items to subcontract' using legitimate reasons, including but not limited to, ***a discussion with the DBE firm*** regarding its capabilities prior to the bid letting. If lack of capacity is your reason for not utilizing the DBE quote, you are required to contact the DBE by phone and email regarding their ability to perform the work indicated in the UCP directory listed as their work area by NAICS code. Only the work area and/or NAICS code listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.
   (2) In striving to meet an assigned DBE contract goal, prime contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.

(3) **Special Circumstance** - Evaluation of DBE quotes with tied bid items. “Tied quotes are the condition in which a subcontractor submits quotes including multiple areas of expertise across multiple work areas noting that the items and price are tied. Typically this type of quoting represents a cost saving to the prime but is not clearly stated as a discount; tied quotes are usually presented as ‘all or none’ quote to the prime.” When non-DBE subcontractors submit tied bid items in their quotes to the prime, the DBE firms’ quote may seem not competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples.

i. Compare bid items common to both quotes, noting the reasonableness in the price comparison.
ii. Review quotes from other firms for the bid items not quoted by the DBE firm to see if combining both can provide the same competitive advantage that the tied bid items offered.

d. Immediately after notification of contract award, the prime submits all **'Commitment to Subcontract'** forms to the DBE Office. Prime contractor has 5 days to submit the completed form for the DBE firms it intends to use on the contract for DBE credit. If the goal is not met in full, the prime contractor must provide the following information along with WisDOT form DT1202: Certificate of Good Faith Efforts.

(1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact.
(2) A description of information provided to the DBE's regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE.
(3) Photocopies or electronic copies of all written solicitations to DBE's. A printed copy of SBN solicitation is acceptable.
(4) Documentation of each quote received from a DBE and, if rejected, the reason for that rejection.
(5) Bidder attendance at any pre-solicitation or pre-bid meetings the department held to inform DBE's of participation opportunities available on the project.

The prime contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved Commitment to Subcontract to DBE Form [DT1506]. If the prime contractor utilizes another contractor, including the use of its own workforce, to perform the work assigned to a DBE on the approved DT1506, the prime contractor will not be entitled to payment for that work. Any changes to DBE after the approval of the DT1506 must be reviewed and approved by the DBE office prior to the change.

## 6. Use of Joint Checks

The *use of joint checks is allowable if it is a commonly recognized business practice in* the material industry. A joint check is defined as a two-party check between a DBE, a prime contractor and the regular dealer of materials supplier who is neither the prime nor an affiliate of the prime. Typically, the prime contractor issues one check as payor to the DBE subcontractor and to the supplier jointly (to guarantee payment to the supplier) as payment for the material/supplies used by the DBE in cases where the prime has submitted the DBE and material for DBE credit. The DBE subcontractor gains the opportunity to establish a direct contracting relationship with the supplier to potentially facilitate a business rapport that results in a line of credit or increased partnering opportunities.

The cost of material and supplies purchased by the DBE is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE must be responsible for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and "paying for the material itself." See 49 CFR 26.55(c)(1).

The approval to use joint checks constitutes a commitment to provide further information to WisDOT, upon request by staff. WisDOT will allow the use of joint checks when the following conditions are met:

a. The Prime must request permission to use joint checks from the DBE Office by submitting the Application to Use Joint Checks.
   (1) Request should be made when the DBE Commitment form or Request to Sublet is submitted; the request will not be considered if submitted after the DBE Subcontractor starts its work.
   (2) Approval/Permission must be granted prior to the issuance of any joint checks.
   (3) The payment schedule for the supplier must be presented to the DBE office before the first check is issued.
   (4) The joint check for supplies must be strictly for the cost of supplies.

b. DBE subcontractor is responsible to furnish and/or install the material/work item. The DBE subcontractor shall not be an 'extra participant' in the transaction; the DBE's role in the transaction cannot be limited solely to signing the check(s) to release payment to the material supplier. At a minimum, the DBE subcontractor's tasks should include the following.
   (1) The DBE subcontractor (not the prime/payor) negotiates the quantities, price and delivery of materials;
   (2) The DBE subcontractor consents to sign/release the check to the supplier by signing the Application to Use Joint Checks after establishing the conditions and documentation of payment within the subcontract terms or in a separate written document.

c. The Prime contractor/payor acts solely as a guarantor,
   (1) The prime agrees to furnish the check used for the payment of materials/supplies under the contract.
   (2) The prime contractor/payor cannot require the subcontractor to use a specific supplier or the prime contractors negotiated unit price.

## 7. Bidder's Appeal Process

a. A bidder can appeal the department's decision to deny the bidder's good faith effort submission. The bidder must provide written documentation refuting the specific reasons for rejection as stated in the department's rejection notice. The bidder may meet in person with the department if so requested. Failure to appeal within 7 calendar days after receiving the department's written denial notice of a good faith effort evaluation constitutes a forfeiture of the bidder's right of appeal. A contract cannot be executed without documentation that the DBE provisions have been fulfilled.

b. The department will appoint a representative, who did not participate in the original determination, to assess the bidder's appeal. The department will issue a written decision within 5 calendar days after the bidder presents all written and oral testimony. In that written decision, the department will explain the basis for finding that the bidder did or did not meet the contract DBE goal or make an adequate good faith effort to meet the contract DBE goal. The department's decision is final. If the department finds that the bidder did not meet the contract DBE goal or did not make adequate efforts to meet the DBE goal, the department may declare the bid ineligible for execution.

## 8. Department's Criteria for DBE Participation

**Directory of DBE firms**

a. The only resource for DBE certified firms certified in the state of Wisconsin is the Wisconsin Unified Certification Program [UCP] DBE List. Wisconsin Department of Transportation maintains a current list of certified DBE firms titled Wisconsin UCP DBE Directory on the website at:
   http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx

b. The DBE office is also available to assist at 414-438-4583 or 608-267-3849.

## 9. Counting DBE Participation

**Assessing DBE Work**

a. The department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the unified certification program agencies. If a firm becomes DBE certified before entering into a subcontract, the department may consider that DBE usage towards the contract goal. The department only counts the value of the work a DBE actually performs towards the DBE goal. The department assesses the DBE work as follows:

b. The department counts work performed by the DBE's own resources. The department includes the cost of materials and supplies the DBE obtains for the work. The department also includes the cost of equipment the DBE leases for the work. The department will not include the cost of materials, supplies, or equipment the DBE purchases or leases from the prime contractor or its affiliate, except the department will count non-project specific leases the DBE has in place before the work is advertised.

c. The department counts fees and commissions the DBE charges for providing a bona fide professional, technical, consultant, or managerial services. The department also counts fees and commissions the DBE charges for providing bonds or insurance. The department will only count costs the engineer deems reasonable based on experience or prevailing market rates.

d. If a DBE subcontracts work, the department counts the value of the subcontracted work only if the DBE's subcontractor is also a DBE.

e. The contractor shall maintain records and may be required to furnish periodic reports documenting its performance under this item.

f. It is the prime contractor’s responsibility to determine whether the work that is committed and/or contracted to a DBE certified firm can be counted for DBE credit by referencing the work type and NAICS code listed for the DBE firm on the Wisconsin UCP DBE Directory.

g. It is the prime contractor’s responsibility to assess the DBE firm’s ability to perform the work for which s/he is committing/contracting the DBE to do. Note that the department encourages the prime contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.

## 10. Commercially Useful Function

a. Commercially useful function is evaluated after the contract has been executed, while the DBE certified firm is performing its work items. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved.

b. The department uses Form DT1011: DBE Commercially Useful Function Review and Certification to evaluate whether the DBE is performing a commercially useful function. WisDOT counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.

c. A DBE is performing a commercially useful function if the following conditions are met:
   (1) For contract work, the DBE is responsible for executing a distinct portion of the contract work and it is carrying out its responsibilities by actually performing, managing, and supervising that work.
   (2) For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

## 11. Credit Evaluation for Trucking

All bidders are expected to adhere to the department's current trucking policy posted on the HCCI website at http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf

## 12. Credit Evaluation for Manufacturers, Suppliers, Brokers

The department will calculate the amount of DBE credit awarded to a prime using a DBE firm for the provisions of materials and supplies on a contract-by-contract basis. The department will count the material and supplies that a DBE provides under the contract for DBE credit based on whether the DBE is a manufacturer, supplier or broker. Generally, DBE crediting measures and evaluates the DBE owner's role, responsibility and contribution to the transaction: maximum DBE credit when the DBE manufactures materials or supplies; DBE credit decreases when the DBE solely supplies material and minimal credit is allotted when the DBE's role is administrative or transactional.

It is the bidder's responsibility to find out if the DBE is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506.

a. Manufacturers
   (1) A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
   (2) If the materials or supplies are obtained from a DBE manufacturer, count **100%** percent of the cost of the materials or supplies toward DBE goals.

b. Regular Dealers of Material and/or Supplies
   (1) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.
   (2) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.
   (3) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:
      i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
      ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.

c. Brokers, Transaction Expediters, Packagers, Manufacturers Representatives
   (1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit; however, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives or other persons who arrange or expedite transactions.
   (2) Brokerage fees have historically been calculated as **10%** of the purchase amount.
   (3) WisDOT may count the amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site.
   (4) The evaluation will review the contract need for the item/service, review the sub-contract or invoice for the item/service, compare the fees customarily allowed for similar services to determine whether they are reasonable.

When DBE suppliers are contracted, additional documentation must accompany the DT1506 and Attachment 'A' forms. An invoice or bill-of-sale that includes the company names of the bidder and the DBE supplier and documentation of the calculations used as the basis for the purchase agreement, subcontract or invoice. *WisDOT recognizes that the amount on the Attachment 'A' form may be more or less than the amount on the invoice*. Please respond to the following questions and submit with your DBE Commitment Form.

1. What is the product or material?
2. Is this item in the prime's inventory or was the item purchased when contract was awarded?
3. Which contract line items were referenced to develop this quote?
4. What is the amount of material or product used on the project?

## 13. Credit Evaluation for DBE Primes

Wisconsin DOT calculates DBE credit based on the amount and type of work performed by DBE certified firms. If the prime contractor is a DBE certified firm, the department will only count the work that DBE prime contractor performs with its own forces for DBE credit. We will also calculate DBE credit for the work performed by any other DBE certified subcontractor, DBE certified supplier, DBE certified manufacturer on that contract in that DBE's approved work areas/NAICS code. Crediting for manufacturers and suppliers is calculated consistent with paragraph 12 of this document and 49 CFR Part 26.

## 14. Joint Venture

If a DBE performs as a participant in a joint venture, the department will only count that portion of the total dollar value of the contract equal to that portion of the work that the DBE performs with its own forces for DBE credit.

## 15. Mentor Protégé

a. If a DBE performs as a participant in a mentor protégé agreement, the department will count for credit the portion of the work performed by the DBE protégé firm.

b. DBE credit will be evaluated and confirmed by the DBE Office for any contracts on which the mentor protégé team identifies itself to the DBE Office as a current participant of the Mentor Protégé Program.

c. Refer to WisDOT's Mentor Protégé guidelines for guidance on the number of contracts and amount of DBE credit that can be counted on any WisDOT project.

## 16. DBE Replacement or Termination

**Contractual Requirement**

The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from the Department's DBE Office. If the Department does not provide consent to replace or terminate a DBE firm, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

**Contractor Considerations**

a. A prime contractor cannot terminate and/or replace a DBE subcontractor listed on the approved Commitment to Subcontract to DBE Form [DT1506] without prior written consent from the DBE Office. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

b. If a prime contractor feels it is necessary to replace or terminate a DBE firm that has been approved for DBE credit toward its contract, s/he will be required to provide reasons and documentation to support why the prime cannot fulfill the contractual commitment that it made to the Department regarding the DBE utilization.

c. Prime contractor is required to make affirmative efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the assigned DBE contract goal.

d. In circumstances when a DBE subcontractor fails to complete its work on the contract for any reason or is terminated from a contract, the prime contractor is expected to make affirmative efforts to maintain its commitment to the assigned DBE goal.

e. The DBE firm should communicate with the prime contractor regarding its schedule and capacity in the context of the contract. If the DBE anticipates that it cannot fulfill its subcontract, s/he shall advise the prime contractor and suggest a DBE that may replace their services or provide written consent to be released from its subcontract.

(1) Before the prime contractor can request to terminate or substitute a DBE firm; s/he must:
   i. Make every effort to fulfill the DBE commitment by working with the listed DBE to ensure that they are fully knowledgeable of your expectations for successful performance on the contract. Document these efforts in writing.
   ii. If those efforts fail, provide written notice to the DBE subcontractor of your *intent to* request to terminate and/or replace the firm including the reason(s) you want to pursue this action.
   iii. Copy the DBE Office on all correspondence related to changing a DBE firm who has been approved for DBE credit on a contract including the preparation and coordination efforts with the DBE on the contract.
   iv. Clearly state the amount of time the DBE firm has to remedy and/or respond to your notice of intent to replace/terminate their firm from the contract. The DBE shall be allowed five days to respond, in writing. **EXCEPTION:** The prime contractor must provide a verifiable reason for a response period shorter than five days. For example a WisDOT project manager must verify that waiting 5 days for a DBE performing traffic control work to respond would affect the public safety.
   v. The DBE subcontractor must forward a written response to the prime contractor and copy the DBE Office. The written response must outline why it objects to the proposed termination of its subcontract and list the reasons that WisDOT should not approve the request for their firm to be replaced or removed from the contract.

**The Request to Replace or Terminate a DBE**

The prime contractor must provide a written request to replace or terminate a DBE firm that has been approved for DBE credit on a WisDOT contract. The written request can be an email or printed document delivered by email or fax; at minimum, the request must contain the following:

1. Contract ID number.
2. Wisconsin DOT Contract Project Manager name and contact information.
3. DBE name and work type and/or NAICS code.
4. Contract's progress schedule.
5. Reason(s) for requesting that the DBE be replaced or terminated.
6. Attach/include all communication with the DBE to deploy/address/resolve work completion,

WisDOT will review your request and any supporting documentation that you submit to evaluate whether the circumstance and the reasons constitute a good cause for replacing or terminating the DBE that was approved for DBE credit on that contract.

*Examples of Good Causes to Replace a DBE according to the federal DBE program guidelines {49 CFR part 26.53}*

- The listed DBE subcontractor fails or refuses to execute a written contract.
- The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor.
- The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements.
- The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness.
- The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law.
- You have determined that the listed DBE subcontractor is not a responsible contractor.
- The listed DBE subcontractor voluntarily withdraws from the project and provides to you written notice of its withdrawal.
- The listed DBE is ineligible to receive DBE credit for the type of work required.
- A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract.

**Evaluation and Response to the Request**
If WisDOT determines that your reasons comply with the good cause standards; the DBE office will send the prime contractor and the WisDOT project manager an email stating that we concur with the reasons and approve the replacement or termination.

If WisDOT determines that your reasons do not comply with the good cause standards of the federal DBE program, the DBE Office will send the prime contractor an email that includes *the requirement* to utilize the committed DBE, *remedial actions* to support the completion of the contractual commitment, a list of available WisDOT support services *and administrative remedies that may be invoked* for failure to comply with federal DBE guidelines for DBE replacement.

The Wisconsin Department of transportation contact for all actions related to replacing a DBE is the DBE Program Chief and/or the DBE Program Engineer which can be reached at DBE_Alert@dot.wi.gov or by calling 608-267-3849.

## 17. DBE Utilization beyond the approved DBE Commitment Form DT1506

If the Prime/subcontractor increases the scope of work for a participating DBE or adds a DBE subcontractor that was not on the approved Form DT1506 at any time after contract award, s/he should follow these steps so that the participation can be accurately credited toward the DBE goal.

a. Send an email to the DBE Engineer at DBE_Alert@dot.wi.gov describing the work to be performed by the new DBE including the proposed schedule or duration, DBE name and contact information. You may also call the DBE Engineer at 414-659-0487 to notify him of the change verbally.
If the scope change added work for a participating DBE; list the date and reason for the scope change.

b. Forward a complete, signed Attachment 'A' form to the DBE Office at DBE_Alert@dot.wi.gov. A complete Attachment A includes DBE contact information, signature, subcontract value and proper description of the work areas to be performed by the DBE.
The DBE office will confirm the DBE participation and revise the DT1506 based on the email/discussion and attach the new/revised Attachment A to the Contract record/documentation.

## 18. Contract Modifications

When additional opportunity is available by contract modifications, the Prime Contractor shall utilize DBE Subcontractors that were committed to equal work items, in the original contract.

## 19. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

# APPENDIX A
## Sample Contractor Solicitation Letter Page 1
***This sample is provided as a guide not a requirement***

**GFW SAMPLE MEMORANDUM**

| | |
|---|---|
| **TO:** | DBE FIRMS |
| **FROM:** | POTENTIAL PRIME CONTRACTOR OR MAJOR SUBCONTRACTOR |
| **SUBJECT:** | **REQUEST FOR DBE QUOTES**<br>**LET DATE & TIME** |
| **DATE:** | MONTH DAY YEAR |
| **CC:** | DBE OFFICE ENGINEER |

Our company is considering bidding on the projects indicated on the next page, as a prime and/or a subcontractor for the Wisconsin Department of Transportation Month- date -year Letting. Page 2 lists the projects and work items that we may subcontract for this letting. We are interested in obtaining subcontractor quotes for these projects and work categories. Also note that we are willing to accept quotes in areas we may be planning to perform ourselves as required by federal rules.

Please review page 2, respond whether you plan to quote, highlight the projects and work items you are interested in performing and return it via fax or email within 3 days. Plans, specifications and addenda are available through WisDOT at the DBE Support Services office or at the Highway Construction Contract Information (HCCI) site at http://roadwaystandards.dot.wi.gov/hcci/

Your quote should include all of the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Page 2, with the indicated projects and items you plan to quote, should be used as a cover sheet for your quote.

Please make every effort to have your quotes into our office by time deadline the prior to the letting date. ***Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.*** We prefer quotes be sent via SBN but prime's alternatives are acceptable. Our office hours are include hours and days. Please call our office as soon as possible prior to the letting if you need information/clarification to prepare your quote at contact number.

If you wish to discuss or evaluate your quote in more detail, contact us after the contract is awarded. Status of the contract can be checked at WisDOT's HCCI site at http://roadwaystandards.dot.wi.gov/hcci/

All questions should be directed to:

Project Manager, John Doe,
Phone: (000) 123-4567
Email: Joe@joetheplumber.com
Fax: (000) 123- 4657

# Sample Contractor Solicitation Letter Page 2

***This sample is provided as a guide not a requirement***

REQUEST FOR QUOTATION

**Prime's Name:** _____

**Letting Date:** _____

**Project ID:** _____

**Please check all that apply**

- ☐ Yes, we will be quoting on the projects and items listed below
- ☐ No, we are not interested in quoting on the letting or its items referenced below
- ☐ Please take our name off your monthly DBE contact list
- ☐ We have questions about quoting this letting. Please have someone contact me at this number

| Prime Contractor 's Contact Person | DBE Contractor Contact Person |
|---|---|
| | |
| Phone: | Phone |
| Fax: | Fax |
| Email: | Email |

**Please circle the jobs and items you will be quoting below**

| Proposal No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| County | | | | | | | |

**WORK DESCRIPTION:**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Clear and Grub | X | | X | X | | X | X |
| Dump Truck Hauling | X | | X | X | | X | X |
| Curb & Gutter/Sidewalk, Etc. | X | | X | X | | X | X |
| Erosion Control Items | X | | X | X | | X | X |
| Signs and Posts/Markers | X | | X | X | | X | X |
| Traffic Control | | X | X | X | | X | X |
| Electrical Work/Traffic Signals | | X | X | X | | X | |
| Pavement Marking | | X | X | X | X | X | X |
| Sawing Pavement | | X | X | X | X | X | X |
| QMP, Base | X | X | | X | X | X | X |
| Pipe Underdrain | X | | | X | | | |
| Beam Guard | | | | X | X | X | X |
| Concrete Staining | | | | | | | X |
| Trees/Shrubs | X | | | | | | X |

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

**We prefer quotes be sent via SBN but prime's preferred alternatives are acceptable**.

If there are further questions please direct them to the prime contractor's contact person at phone number.

# APPENDIX B
# BEST PRACTICES FOR PRIME CONTRACTOR & DBE SUBCONTRACTOR GOOD FAITH EFFORT

*This list is not a set of requirements; it is a list of potential strategies*

**Primes**

- Prime contractor open houses inviting DBE firms to see the bid "war room" or providing technical assistance.
- Participate in speed networking and mosaic exercises as arranged by DBE office.
- Host information sessions not directly associated with a bid letting.
- Participate in a formal mentor protégé or joint venture with a DBE firm.
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Facilitate a small group DBE 'training session' Clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications and communication methods.
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Quality of communication, not quantity creates the best results. Contractors should do as thorough a job as possible in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

**DBE**

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the 'apparent low bidder' list, and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation-related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs.
- Participate on advisory and mega-project committees.
- Sign up to receive the DBE Contracting Update.
- Consider membership in relevant industry or contractor organizations.
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the department are the only ways to get work.

# APPENDIX C
## Types of Efforts considered in determining GFE
*This list represents concepts being assessed; analysis requires additional steps*

1. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by WisDOT to inform DBEs of contracting and subcontracting opportunities.
2. Whether the contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively.
3. Whether the contractor followed up initial solicitations of interest by contacting DBEs to determine if the DBEs were interested; returned the phone calls of interested DBE firms.
4. Whether the contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goal.
5. Whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract.
6. Whether the contractor negotiated in good faith with interested DBEs, not rejected DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities.
7. Whether the contractor made efforts to assist interested DBEs in being more competitive.
8. Whether the contractor effectively used the services of available minority community organizations: minority contractors groups, local, state, and Federal minority business assistance offices, and other organizations that provide assistance to small businesses and DBE firms.
9. Whether Prime used CRCS to identify DBE who specialize in relevant work areas.
10. Whether the contractor used available resources including contacting the DBE office, using WisDOT's website
11. Whether the contractor returned calls of firms expressing interest in a timely manner.

# APPENDIX D
# Good Faith Effort Evaluation Guidance
## *Excerpt from Appendix A of 49 CFR Part 26*

**APPENDIX A TO PART 26 -- GUIDANCE CONCERNING GOOD FAITH EFFORTS**

I. When, as a recipient, you establish a contract goal on a DOT assisted contract, a bidder must, in order to be responsible and/or responsive, make good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

II. In any situation in which you have established a contract goal, part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, it is up to you to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a

contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non solicitation of bids in the contractor's efforts to meet the project goal.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, you may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.

# Appendix E
# Small Business Network [SBN] Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription.
Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
    a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for completion at a later time.

2. Create sub-quotes for the subcontracting community:
    a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
    b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
    c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE-preferred request.
    d. Add attachments to sub-quotes.

3. View sub-quote requests & responses:
    a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
    b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing.

4. View Record of Subcontractor Outreach Effort:
    a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a "Good Faith" effort in reaching out to the DBE community.
    b. Easily locate pre-qualified and certified small and disadvantaged businesses.
    c. Advertise to small and disadvantaged businesses more efficiently and cost effectively.
    d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency).

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs.

1. View and reply to sub-quote requests from primes:
    a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests, or hidden with one click if they are not applicable.

2. Select items when responding to sub-quote requests from primes:
    a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
    b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes.
    c. Add attachments to a sub-quote.

3. Create and send unsolicited sub-quotes to specific contractors:
    a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.

4. Easily select and price items for unsolicited sub-quotes:
    a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on a per-item basis as well.
    b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder.
    c. Add attachments to a sub-quote.
    d. Add unsolicited work items to sub-quotes that you are responding to.

5. Easy Access to Valuable Information
    a. Receive a confirmation that your sub-quote was opened by a prime.
    b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
    c. View important notices and publications from DOT targeted to small and disadvantaged businesses.

6. Accessing Small Business Network for WisDOT contracting opportunities
    a. If you are a contractor not yet subscribing to the Bid Express service, go to **www.bidx.com** and select "Order Bid Express." The Small Business Network is a part of the Bid Express Basic Service.
    b. DBE firms can request a Bid Express Small Business Network Account at no cost by calling 414-438-4588.

# ADDITIONAL SPECIAL PROVISION 4

## Payment to First-Tier Subcontractors

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor may also withhold routine retainage from payments due subcontractors.

## Payment to Lower-Tier Subcontractors

Ensure that subcontracting agreements at all tiers provide prompt payment rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

## Release of Routine Retainage

After granting substantial completion the department may reduce the routine retainage withheld from the prime contractor to 75 percent of the original total amount retained.

When the Department sends the semi-final estimate the department may reduce the routine retainage withheld from the prime contractor to 10 percent of the original total amount retained.

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work and that no routine retainage is being withheld. The department will pay the prime contractor in full and reduce the routine retainage withheld from the prime contractor to zero when the department approves the final estimate.

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

# ADDITIONAL SPECIAL PROVISION 6
# ASP 6 - Modifications to the standard specifications

*Make the following revisions to the standard specifications:*

---

**440.3.5.2 Corrective Actions for Localized Roughness**

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

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

---

**450.3.1.1.4 Recording Truck Loads**

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

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

(2) Ensure that tickets identify additives not included in the mix design submittal. Indicate on the ticket if the mixture will be placed under a cold weather paving plan and identify the warm mix additive and dosage rate required under 450.3.2.1.2.2.

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**455.3.2.1 General**

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

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

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**460.2.1 General**

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

(1) Furnish a homogeneous mixture of coarse aggregate, fine aggregate, mineral filler if required, SMA stabilizer if required, recycled material if used, warm mix asphalt additive or process if used, and asphaltic material. Design mixtures conforming to table 460-1 and table 460-2 to 4.0% air voids to establish the aggregate structure.

(2) Determine the target JMF asphalt binder content for production from the mix design data corresponding to 3.0% air voids (97% Gmm) target at the design the number of gyrations (Ndes). Add liquid asphalt to achieve the required air voids at Ndes.

(3) For SMA, determine the target JMF asphalt binder content for production from the mix design data corresponding to 4.0% air voids (96% Gmm) target at Ndes.

**460.2.8.2.1.5 Control Limits**

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

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

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

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

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

**460.2.8.2.1.6 Job Mix Formula Adjustment**

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

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

**460.2.8.3.1.6 Acceptable Verification Parameters**

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

(1) The engineer will provide test results to the contractor within 2 mixture-production days after obtaining the sample. The quality of the product is acceptably verified if it meets the following limits:

- Va is within a range of 2.0 to 4.3 percent. For SMA, Va is within a range of 2.7 to 5.3 percent.
- VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.

### 460.3.3.1 Minimum Required Density

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

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

**TABLE 460-3 MINIMUM REQUIRED DENSITY[1]**

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

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

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

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

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

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

### 460.5.2.1 General

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

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

### 460.5.2.3 Incentive for HMA Pavement Density

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

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

**INCENTIVE PAY ADJUSTMENT FOR HMA PAVEMENT DENSITY[1]**

| PERCENT LOT DENSITY ABOVE SPECIFIED MINIMUM | PAY ADJUSTMENT PER TON[2] |
|---|---|
| From -0.4 to 1.0 inclusive | $0 |
| From 1.1 to 1.8 inclusive | $0.40 |
| More than 1.8 | $0.80 |

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

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

**501.2.6 Fly Ash**

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

**501.2.6.1 General**

(1) Fly ash is defined as a finely divided residue resulting from the combustion of coal in a base loaded electric generating plant, transported from the boiler by flue gases, and later collected, generally by precipitators. Use fly ash in concrete manufactured by facilities and processes known to provide satisfactory material.

(2) Test fly ash using a recognized laboratory, as defined in 501.2.2(1), starting at least 30 days before its proposed use, and continuing at ASTM-required frequencies as the work progresses. The manufacturer shall test the chemical and physical properties listed in tables 1 and 2 of ASTM C618 at the frequencies and by the test methods prescribed in ASTM C311.

(3) Use only one source of fly ash for a bid item of work under the contract, unless the engineer directs or allows otherwise in writing.

(4) Prequalify any proposed fly ash source as follows: The contractor shall obtain a copy of the certified report of tests or analysis made by a qualified independent laboratory, recognized by the department under 501.2.2, showing full and complete compliance with the above specification from the fly ash manufacturer and furnish it to the engineer. Provide this report to the engineer at least 14 calendar days before using the fly ash.

(5) The manufacturer shall retain test records for at least 5 years after completing the work, and provide these records upon request.

**501.2.6.2 Class C Ash**

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

**501.2.6.3 Class F Ash**

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

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**502.3.7.8 Floors**

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

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

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**503.3.2.1.1 Tolerances**

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

**PRESTRESSED CONCRETE I-TYPE GIRDERS**

Length of beam..... +/- 1/8" per 10', up to a max of +/- 1 1/2"

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**517.3.1.7.3 Epoxy System Intermediate and Protective Coats**

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

(1) Mask the faying surfaces of bolted field splices and the top of the top flanges where welding the stud shear connectors during coat application. On all other areas including the outside surfaces of splice plates, ensure that the dry film thickness conforms to the following:

1. For the white intermediate coat, 3.5 mils to 8 mils.
2. For the protective coat, sufficient thickness to provide a uniform color and appearance but not less than 3 mil or more than 6 mils.

## Errata

*Make the following corrections to the standard specifications:*

**Throughout the contract:**
*Update all references to the construction rental rate "Blue Book" to reference "EquipmentWatch" rates.*

### 105.13.4 Content of Claim

(1) Include the following 5 items in the claim.

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

### 109.4.5.5.1 General

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

http://equipmentwatch.com/estimator/

### 109.4.5.5.2 Hourly Equipment Expense Rates (Without Operators)

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

**HEER = [RAF x ARA x (R/176)] + HOC**

**Where:**

**HEER** = Hourly equipment expense rate.
**RAF** = EquipmentWatch regional adjustment factor.
**ARA** = EquipmentWatch age rate adjustment factor.
**R** = Current EquipmentWatch monthly rate.
**HOC** = EquipmentWatch estimated hourly operating cost.

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

### 109.4.5.5.3 Hourly Equipment Stand-By Rate

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

**HSBR = RAF x ARA x (R/176) x (1/2)**

**Where:**

**HSBR** = Hourly stand-by rate.
**RAF** = EquipmentWatch regional adjustment factor.
**ARA** = EquipmentWatch age rate adjustment factor.
**R** = Current EquipmentWatch monthly rate.

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

### 109.4.5.5.4 Hourly Outside-Rented Equipment Rate

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

**HORER = HRI + HOC**

**Where:**

**HORER** = Hourly outside-rented equipment rate

**HRI** = Hourly rental invoice costs prorated for the actual number of hours that rented equipment is operated solely on force account work

**HOC** = EquipmentWatch hourly operating cost.

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**109.2 Scope of Payment**

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

(2) The department will pay for the quantity of work acceptably completed and measured for payment as the measurement subsection for each bid item specifies. Within the contract provide means to furnish and install the work complete and in-place. Payment is full compensation for everything required to perform the work under the contract including, but not limited to, the work elements listed in the payment subsection. Payment also includes all of the following not specifically excluded in that payment subsection:

1. Furnishing and installing all materials as well as furnishing the labor, tools, supplies, equipment, and incidentals necessary to perform the work.
2. All losses or damages, except as specified in 107.14, arising from one or more of the following:
   - The nature of the work.
   - The action of the elements.
   - Unforeseen difficulties encountered during prosecution of the work.
3. All insurance costs, expenses, and risks connected with the prosecution of the work.
4. All expenses incurred because of an engineer-ordered suspension, except as specified in 104.2.2.3.
5. All infringements of patents, trademarks, or copyrights.
6. All other expenses incurred to complete and protect the work under the contract.

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**204.3.2.2.1 General**

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

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

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**657.2.2.1.1 General**

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

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

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**657.2.2.1.4 Poles Designed Under Legacy Standards**

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

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**657.2.2.2 Trombone Arms**

*Correct errata by changing the reference from 657.2.2.1.3 to 657.2.2.1.2.*

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

# ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

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

B. Costs for conforming to this special provision are incidental to the contract.

# ADDITIONAL SPECIAL PROVISION 9
# Electronic Certified Payroll Submittal

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

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

(2) Ensure that all tiers of subcontractors, as well as all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon. Not every contractor's payroll system is capable of producing export files. For details, see pages 17-22 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at:

http://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf

**REQUIRED CONTRACT PROVISIONS**
**FEDERAL-AID CONSTRUCTION CONTRACTS**



## I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

## II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

**6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

**10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

**III. NONSEGREGATED FACILITIES**

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

**IV. DAVIS-BACON AND RELATED ACT PROVISIONS**

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

**1. Minimum wages**

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

**2. Withholding**

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

**3. Payrolls and basic records**

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee ( e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

**4. Apprentices and trainees**

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.**

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

## V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages**. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

**VI. SUBLETTING OR ASSIGNING THE CONTRACT**

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

**VII. SAFETY: ACCIDENT PREVENTION**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

**VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

**IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

**X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

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

* * * * *

**2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

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

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

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

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

# Non-discrimination Provisions

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

**1. Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

**2. Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

**3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

**4. Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

**5. Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the contractor under the contract until the contractor complies; and/or
b. Cancelling, terminating, or suspending a contract, in whole or in part.

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

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

**Pertinent Non-Discrimination Authorities:**

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

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

**SEPTEMBER 2002**

## NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.

2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

**Goals for Minority Participation for Each Trade:**

| County | % | County | % | County | % |
|---|---|---|---|---|---|
| Adams | 1.7 | Iowa | 1.7 | Polk | 2.2 |
| Ashland | 1.2 | Iron | 1.2 | Portage | 0.6 |
| Barron | 0.6 | Jackson | 0.6 | Price | 0.6 |
| Bayfield | 1.2 | Jefferson | 7.0 | Racine | 8.4 |
| Brown | 1.3 | Juneau | 0.6 | Richland | 1.7 |
| Buffalo | 0.6 | Kenosha | 3.0 | Rock | 3.1 |
| Burnett | 2.2 | Kewaunee | 1.0 | Rusk | 0.6 |
| Calumet | 0.9 | La Crosse | 0.9 | St. Croix | 2.9 |
| Chippewa | 0.5 | Lafayette | 0.5 | Sauk | 1.7 |
| Clark | 0.6 | Langlade | 0.6 | Sawyer | 0.6 |
| Columbia | 1.7 | Lincoln | 0.6 | Shawano | 1.0 |
| Crawford | 0.5 | Manitowoc | 1.0 | Sheboygan | 7.0 |
| Dane | 2.2 | Marathon | 0.6 | Taylor | 0.6 |
| Dodge | 7.0 | Marinette | 1.0 | Trempealeau | 0.6 |
| Door | 1.0 | Marquette | 1.7 | Vernon | 0.6 |
| Douglas | 1.0 | Menominee | 1.0 | Vilas | 0.6 |
| Dunn | 0.6 | Milwaukee | 8.0 | Walworth | 7.0 |
| Eau Claire | 0.5 | Monroe | 0.6 | Washburn | 0.6 |
| Florence | 1.0 | Oconto | 1.0 | Washington | 8.0 |
| Fond du Lac | 1.0 | Oneida | 0.6 | Waukesha | 8.0 |
| Forest | 1.0 | Outagamie | 0.9 | Waupaca | 1.0 |
| Grant | 0.5 | Ozaukee | 8.0 | Waushara | 1.0 |
| Green | 1.7 | Pepin | 0.6 | Winnebago | 0.9 |
| Green Lake | 1.0 | Pierce | 2.2 | Wood | 0.6 |

**Goals for female participation for each trade: 6.9%**

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

**APRIL 2013**

## ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

**1-800-424-9071**

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

**Effective August 2015 letting**

## BUY AMERICA PROVISION

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

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

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

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

Effective February 2016 letting

# Cargo Preference Act Requirement

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses.* "Use of United States-flag vessels:"

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) *Contractor and Subcontractor Clauses.* "Use of United States-flag vessels: The contractor agrees—"

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

**Effective with February 2017 Letting**

# WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT

## SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS



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

The U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) attached hereto and made a part hereof furnishes the prevailing wage rates pursuant to Section 84.062 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 84.062, Stats. Apprentices shall be paid at rates not less than those prescribed in their apprenticeship contract.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 16.856 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly base rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half:

January 1
Last Monday in May
July 4
First Monday in September
Fourth Thursday in November
December 25
The day before if January 1, July 4 or December 25 falls on a Saturday, and

The day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, euclid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

## II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 84.062 of the Wisconsin Statutes.

## III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous and accessible place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 84.062 of the Wisconsin Statutes.

b. A copy of the U.S. Department of Labor (Davis-Bacon, Minimum Wage Rates).

c. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

## IV. WAGE RATE REDISTRIBUTION

A contractor or subcontractor performing work subject to a Davis-Bacon wage determination may discharge its minimum wage obligations for the payment of both straight time wages and fringe benefits by (1) paying both in cash, (2) making payments or incurring costs for bona fide fringe benefits, or (3) by a combination thereof. Thus, under the Davis-Bacon a contractor may offset an amount of monetary wages paid in excess of the minimum wage required under the determination to satisfy its fringe benefit obligations. *See* 40 USC 3142(d) and 29 CFR 5.31.

## V. ADDITIONAL CLASSIFICATIONS

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5(a)(1)(ii)). The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination.

The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

a. The work to be performed by the classification requested is not performed by a classification in the wage determination; and

b. The classification is utilized in the area by the construction industry; and

c. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

General Decision Number: WI170010 03/17/2017  WI10

Superseded General Decision Number: WI20160010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| Modification Number | Publication Date |
|---|---|
| 0 | 01/06/2017 |
| 1 | 02/03/2017 |
| 2 | 02/10/2017 |
| 3 | 02/24/2017 |
| 4 | 03/17/2017 |

BRWI0001-002 06/01/2016

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 31.84 | 20.95 |

BRWI0002-002 06/01/2016

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 37.04 | 19.70 |

BRWI0002-005 06/01/2016

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER | $ 35.07 | 20.51 |

BRWI0003-002 06/01/2016

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 32.22 | 20.57 |

BRWI0004-002 06/01/2016

KENOSHA, RACINE, AND WALWORTH COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 36.59 | 21.49 |

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BRWI0006-002 06/01/2016

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 33.04 | 19.75 |

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BRWI0007-002 06/01/2016

GREEN, LAFAYETTE, AND ROCK COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 33.53 | 20.95 |

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BRWI0008-002 06/01/2016

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 36.98 | 20.62 |

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BRWI0011-002 06/01/2016

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 32.22 | 20.57 |

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BRWI0019-002 06/01/2016

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 31.98 | 20.81 |

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BRWI0034-002 06/01/2015

COLUMBIA AND SAUK COUNTIES

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER | $ 32.86 | 17.22 |

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CARP0087-001 05/01/2016

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

| | Rates | Fringes |
|---|---|---|
| Carpenter & Piledrivermen | $ 36.85 | 18.39 |

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CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

| | Rates | Fringes |
|---|---|---|
| CARPENTER | | |
| CARPENTER | $ 33.56 | 18.00 |
| MILLWRIGHT | $ 35.08 | 18.35 |
| PILEDRIVER | $ 34.12 | 18.00 |

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CARP0252-010 06/01/2016

ASHLAND COUNTY

| | Rates | Fringes |
|---|---|---|
| Carpenters | | |
| Carpenter | $ 33.56 | 18.00 |
| Millwright | $ 35.08 | 18.35 |
| Pile Driver | $ 34.12 | 18.00 |

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* CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

| | Rates | Fringes |
|---|---|---|
| CARPENTER | $ 35.78 | 22.11 |

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CARP0361-004 05/01/2016

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

| | Rates | Fringes |
|---|---|---|
| CARPENTER | $ 34.57 | 18.16 |

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CARP2337-001 06/01/2008

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

| | Rates | Fringes |
|---|---|---|
| PILEDRIVERMAN | | |
| Zone A | $ 27.25 | 19.46 |
| Zone B | $ 24.47 | 19.46 |

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ELEC0014-002 05/30/2016

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

| | Rates | Fringes |
|---|---|---|
| Electricians: | $ 32.00 | 19.28 |

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ELEC0014-007 05/30/2016

REMAINING COUNTIES

| | Rates | Fringes |
|---|---|---|
| Teledata System Installer | | |
| Installer/Technician | $ 24.35 | 13.15 |

Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

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ELEC0127-002 06/01/2016

KENOSHA COUNTY

| | Rates | Fringes |
|---|---|---|
| Electricians: | $ 37.71 | 30%+10.02 |

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ELEC0158-002 05/30/2016

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

| | Rates | Fringes |
|---|---|---|
| Electricians: | $ 30.50 | 29.50% + 9.57 |

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ELEC0159-003 05/30/2016

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

| | Rates | Fringes |
|---|---|---|
| Electricians: | $ 36.50 | 20.39 |

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ELEC0219-004 06/01/2015

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

| | Rates | Fringes |
|---|---|---|
| Electricians: | | |
| Electrical contracts over $180,000 | $ 31.16 | 18.34 |
| Electrical contracts under $180,000 | $ 28.96 | 18.26 |

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ELEC0242-005 05/29/2016

DOUGLAS COUNTY

| | Rates | Fringes |
|---|---|---|
| Electricians: | $ 34.92 | 25.05 |

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ELEC0388-002 06/01/2013

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

| | Rates | Fringes |
|---|---|---|
| Electricians: | $ 28.96 | 24.85% + 9.70 |

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ELEC0430-002 06/01/2016

RACINE COUNTY (Except Burlington Township)

| | Rates | Fringes |
|---|---|---|
| Electricians: | $ 36.07 | 21.84 |

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ELEC0494-005 06/01/2016

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

| | Rates | Fringes |
|---|---|---|
| Electricians: | $ 36.01 | 24.00 |

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ELEC0494-006 06/01/2014

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

| | Rates | Fringes |
|---|---|---|
| Electricians: | $ 29.64 | 20.54 |

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ELEC0494-013 06/01/2015

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

| | Rates | Fringes |
|---|---|---|
| Sound & Communications | | |
| Installer | $ 16.47 | 14.84 |
| Technician | $ 26.00 | 17.70 |

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 05/30/2016

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

| | Rates | Fringes |
|---|---|---|
| Electricians: | $ 30.68 | 17.28 |

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ELEC0890-003 06/01/2016

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

| | Rates | Fringes |
|---|---|---|
| Electricians: | $ 32.45 | 26.10% + $10.56 |

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ELEC0953-001 07/01/2015

| | Rates | Fringes |
|---|---|---|
| Line Construction: | | |
| (1) Lineman | $ 42.14 | 32% + 5.00 |

(2) Heavy Equipment Operator.....$ 40.03 32% + 5.00
(3) Equipment Operator.....$ 33.71 32% + 5.00
(4) Heavy Groundman Driver..$ 26.78 14.11
(5) Light Groundman Driver..$ 24.86 13.45
(6) Groundsman.....$ 23.18 32% + 5.00

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ENGI0139-005 06/01/2016

| | Rates | Fringes |
|---|---|---|
| Power Equipment Operator | | |
| Group 1 | $ 39.27 | 21.80 |
| Group 2 | $ 38.77 | 21.80 |
| Group 3 | $ 38.27 | 21.80 |
| Group 4 | $ 38.01 | 21.80 |
| Group 5 | $ 37.72 | 21.80 |
| Group 6 | $ 31.82 | 21.80 |

HAZARDOUS WASTE PREMIUMS:
EPA Level "A" protection - $3.00 per hour
EPA Level "B" protection - $2.00 per hour
EPA Level "C" protection - $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminious paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self- propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender.

GROUP 6: Off-road material hauler with or without ejector.

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IRON0008-002 06/01/2016

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | $ 30.86 | 25.42 |

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

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IRON0008-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | $ 33.15 | 25.42 |

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

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IRON0383-001 06/01/2015

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | $ 32.85 | 21.84 |

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IRON0498-005 06/01/2008

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | $ 34.34 | 25.72 |

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IRON0512-008 05/01/2015

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | $ 35.50 | 23.45 |

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IRON0512-021 05/01/2015

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | $ 31.04 | 23.45 |

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LABO0113-002 06/01/2016

MILWAUKEE AND WAUKESHA COUNTIES

| | Rates | Fringes |
|---|---|---|
| LABORER | | |
| Group 1 | $ 27.51 | 20.35 |
| Group 2 | $ 27.66 | 20.35 |
| Group 3 | $ 27.86 | 20.35 |
| Group 4 | $ 28.01 | 20.35 |
| Group 5 | $ 28.16 | 20.35 |
| Group 6 | $ 24.00 | 20.35 |

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

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LABO0113-003 06/01/2016

OZAUKEE AND WASHINGTON COUNTIES

| | Rates | Fringes |
|---|---|---|
| LABORER | | |
| Group 1 | $ 26.76 | 20.35 |
| Group 2 | $ 26.86 | 20.35 |
| Group 3 | $ 26.91 | 20.35 |
| Group 4 | $ 27.11 | 20.35 |
| Group 5 | $ 26.96 | 20.35 |
| Group 6 | $ 23.85 | 20.35 |

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

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LABO0113-011 06/01/2016

KENOSHA AND RACINE COUNTIES

| | Rates | Fringes |
|---|---|---|
| LABORER | | |
| Group 1 | $ 26.57 | 20.35 |

| | | |
|---|---|---|
| Group 2 | $ 26.72 | 20.35 |
| Group 3 | $ 26.92 | 20.35 |
| Group 4 | $ 26.89 | 20.35 |
| Group 5 | $ 27.22 | 20.35 |
| Group 6 | $ 23.71 | 20.35 |

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

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LABO0140-002 06/01/2016

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

| | Rates | Fringes |
|---|---|---|
| LABORER | | |
| Group 1 | $ 30.67 | 16.55 |
| Group 2 | $ 30.77 | 16.55 |
| Group 3 | $ 30.82 | 16.55 |
| Group 4 | $ 31.02 | 16.55 |
| Group 5 | $ 30.87 | 16.55 |
| Group 6 | $ 27.30 | 16.55 |

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bitminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

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LABO0464-003 06/01/2016

DANE COUNTY

| | Rates | Fringes |
|---|---|---|
| LABORER | | |
| Group 1 | $ 30.95 | 16.41 |
| Group 2 | $ 31.05 | 16.41 |
| Group 3 | $ 31.10 | 16.41 |
| Group 4 | $ 31.30 | 16.41 |
| Group 5 | $ 31.15 | 16.41 |
| Group 6 | $ 27.30 | 16.41 |

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

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PAIN0106-008 05/02/2016

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| New: | | |
| Brush, Roller | $ 29.86 | 16.35 |
| Spray, Sandblast, Steel | $ 30.46 | 16.35 |
| Repaint: | | |
| Brush, Roller | $ 28.36 | 16.35 |
| Spray, Sandblast, Steel | $ 28.96 | 16.35 |

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PAIN0108-002 06/01/2016

RACINE COUNTY

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| Brush, Roller | $ 32.74 | 18.70 |
| Spray & Sandblast | $ 33.74 | 18.70 |

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PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES

| | Rates | Fringes |
|---|---|---|
| PAINTER | $ 24.11 | 12.15 |

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PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

| | Rates | Fringes |
|---|---|---|
| PAINTER | $ 22.03 | 12.45 |

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PAIN0781-002 06/01/2016

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| Bridge | $ 30.42 | 22.19 |
| Brush | $ 30.07 | 22.19 |
| Spray & Sandblast | $ 30.82 | 22.19 |

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PAIN0802-002 06/01/2016

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

| | Rates | Fringes |
|---|---|---|
| PAINTER | | |
| Brush | $ 27.50 | 17.72 |

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

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PAIN0802-003 06/01/2016

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

| | Rates | Fringes |
|---|---|---|
| PAINTER | $ 24.39 | 11.72 |

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PAIN0934-001 06/01/2016

KENOSHA AND WALWORTH COUNTIES

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| Brush | $ 32.74 | 18.70 |
| Spray | $ 33.74 | 18.70 |
| Structural Steel | $ 32.89 | 18.70 |

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PAIN1011-002 06/01/2016

FLORENCE COUNTY

| | Rates | Fringes |
|---|---|---|
| Painters: | $ 24.56 | 11.93 |

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PLAS0599-010 06/01/2016

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER | | |
| Area 1 | $ 39.46 | 17.17 |
| Area 2 (BAC) | $ 35.07 | 19.75 |
| Area 3 | $ 35.61 | 19.40 |
| Area 4 | $ 34.70 | 20.51 |
| Area 5 | $ 36.27 | 18.73 |
| Area 6 | $ 32.02 | 22.99 |

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,

MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

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TEAM0039-001 06/01/2016

| | Rates | Fringes |
|---|---|---|
| TRUCK DRIVER | | |
| 1 & 2 Axles | $ 26.63 | 19.85 |
| 3 or more Axles; Euclids Dumptor & Articulated, Truck Mechanic | $ 26.78 | 19.85 |
| WELL DRILLER | $ 16.52 | 3.70 |

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198

indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

**March 2017**

# NOTICE TO BIDDERS
# WAGE RATE DECISION

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

Proposal ID: 20170509008 Project(s): 1370-15-71

Federal ID(s): WISC 2017266

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

| Proposal Line Number | Item ID<br>Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|---|---|---|---|---|
| 0010 | 108.4400<br>CPM Progress Schedule | 1.000<br>EACH | _____.____ | _____.____ |
| 0020 | 204.0100<br>Removing Pavement | 26,630.000<br>SY | _____.____ | _____.____ |
| 0030 | 204.0110<br>Removing Asphaltic Surface | 37,150.000<br>SY | _____.____ | _____.____ |
| 0040 | 204.0115<br>Removing Asphaltic Surface Butt Joints | 2,930.000<br>SY | _____.____ | _____.____ |
| 0050 | 204.0120<br>Removing Asphaltic Surface Milling | 261,265.000<br>SY | _____.____ | _____.____ |
| 0060 | 204.0150<br>Removing Curb & Gutter | 1,818.000<br>LF | _____.____ | _____.____ |
| 0070 | 204.0155<br>Removing Concrete Sidewalk | 443.000<br>SY | _____.____ | _____.____ |
| 0080 | 204.0157<br>Removing Concrete Barrier | 84.000<br>LF | _____.____ | _____.____ |
| 0090 | 204.0165<br>Removing Guardrail | 11,087.000<br>LF | _____.____ | _____.____ |
| 0100 | 204.0180<br>Removing Delineators and Markers | 500.000<br>EACH | _____.____ | _____.____ |
| 0110 | 205.0100<br>Excavation Common | 49,289.000<br>CY | _____.____ | _____.____ |
| 0120 | 211.0100<br>Prepare Foundation for Asphaltic Paving (project) 01. 1370-15-71 | LS | LUMP SUM | _____.____ |
| 0130 | 211.0400<br>Prepare Foundation for Asphaltic Shoulders | 1,696.000<br>STA | _____.____ | _____.____ |
| 0140 | 213.0100<br>Finishing Roadway (project) 01. 1370-15-71 | 1.000<br>EACH | _____.____ | _____.____ |
| 0150 | 305.0110<br>Base Aggregate Dense 3/4-Inch | 14,720.000<br>TON | _____.____ | _____.____ |
| 0160 | 305.0120<br>Base Aggregate Dense 1 1/4-Inch | 21,040.000<br>TON | _____.____ | _____.____ |

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Federal ID(s): WISC 2017266

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

| Proposal Line Number | Item ID<br>Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|---|---|---|---|---|
| 0170 | 305.0500<br>Shaping Shoulders | 194.000<br>STA | _____.____ | _____.____ |
| 0180 | 311.0110<br>Breaker Run | 25,440.000<br>TON | _____.____ | _____.____ |
| 0190 | 390.0403<br>Base Patching Concrete Shes | 2,867.000<br>SY | _____.____ | _____.____ |
| 0200 | 415.0080<br>Concrete Pavement 8-Inch | 27,490.000<br>SY | _____.____ | _____.____ |
| 0210 | 415.1080<br>Concrete Pavement HES 8-Inch | 1,350.000<br>SY | _____.____ | _____.____ |
| 0220 | 416.0610<br>Drilled Tie Bars | 365.000<br>EACH | _____.____ | _____.____ |
| 0230 | 416.0620<br>Drilled Dowel Bars | 14,338.000<br>EACH | _____.____ | _____.____ |
| 0240 | 416.0750.S<br>Concrete Pavement Partial Depth Repair Joint Repair | 10,000.000<br>LF | _____.____ | _____.____ |
| 0250 | 416.1715<br>Concrete Pavement Repair SHES | 3,911.000<br>SY | _____.____ | _____.____ |
| 0260 | 416.1725<br>Concrete Pavement Replacement SHES | 2,655.000<br>SY | _____.____ | _____.____ |
| 0270 | 420.1000<br>Continuous Diamond Grinding Concrete Pavement | 60,080.000<br>SY | _____.____ | _____.____ |
| 0280 | 440.4410<br>Incentive IRI Ride | 37,441.000<br>DOL | 1.00000 | 37,441.00 |
| 0290 | 455.0605<br>Tack Coat | 24,663.000<br>GAL | _____.____ | _____.____ |
| 0300 | 460.2005<br>Incentive Density PWL HMA Pavement | 55,029.000<br>DOL | 1.00000 | 55,029.00 |
| 0310 | 460.2010<br>Incentive Air Voids HMA Pavement | 86,721.000<br>DOL | 1.00000 | 86,721.00 |
| 0320 | 460.4110.S<br>Reheating HMA Pavement Longitudinal Joints | 64,628.000<br>LF | _____.____ | _____.____ |

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SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

| Proposal Line Number | Item ID<br>Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|---|---|---|---|---|
| 0330 | 460.6223<br>HMA Pavement 3 MT 58-28 S | 32,910.000<br>TON | _____.____ | _____.____ |
| 0340 | 460.6224<br>HMA Pavement 4 MT 58-28 S | 34,880.000<br>TON | _____.____ | _____.____ |
| 0350 | 460.7424<br>HMA Pavement 4 HT 58-28 H | 18,931.000<br>TON | _____.____ | _____.____ |
| 0360 | 465.0315<br>Asphaltic Flumes | 113.000<br>SY | _____.____ | _____.____ |
| 0370 | 465.0400<br>Asphaltic Shoulder Rumble Strips | 142,508.000<br>LF | _____.____ | _____.____ |
| 0380 | 520.8700<br>Cleaning Culvert Pipes | 8.000<br>EACH | _____.____ | _____.____ |
| 0390 | 520.9700.S<br>Culvert Pipe Liners (size) 01. 15-Inch | 480.000<br>LF | _____.____ | _____.____ |
| 0400 | 520.9750.S<br>Cleaning Culvert Pipes for Liner Verification | 6.000<br>EACH | _____.____ | _____.____ |
| 0410 | 524.0118<br>Culvert Pipe Salvaged 18-Inch | 56.000<br>LF | _____.____ | _____.____ |
| 0420 | 524.0124<br>Culvert Pipe Salvaged 24-Inch | 24.000<br>LF | _____.____ | _____.____ |
| 0430 | 524.0130<br>Culvert Pipe Salvaged 30-Inch | 8.000<br>LF | _____.____ | _____.____ |
| 0440 | 524.0618<br>Apron Endwalls for Culvert Pipe Salvaged 18-Inch | 20.000<br>EACH | _____.____ | _____.____ |
| 0450 | 524.0624<br>Apron Endwalls for Culvert Pipe Salvaged 24-Inch | 7.000<br>EACH | _____.____ | _____.____ |
| 0460 | 524.0630<br>Apron Endwalls for Culvert Pipe Salvaged 30-Inch | 1.000<br>EACH | _____.____ | _____.____ |
| 0470 | 524.0636<br>Apron Endwalls for Culvert Pipe Salvaged 36-Inch | 1.000<br>EACH | _____.____ | _____.____ |

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SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

| Proposal Line Number | Item ID<br>Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|---|---|---|---|---|
| 0480 | 601.0409<br>Concrete Curb & Gutter 30-Inch Type A | 1,315.000<br>LF | _____.____ | _____.____ |
| 0490 | 601.0411<br>Concrete Curb & Gutter 30-Inch Type D | 309.000<br>LF | _____.____ | _____.____ |
| 0500 | 601.0555<br>Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A | 143.000<br>LF | _____.____ | _____.____ |
| 0510 | 601.0600<br>Concrete Curb Pedestrian | 25.000<br>LF | _____.____ | _____.____ |
| 0520 | 602.0410<br>Concrete Sidewalk 5-Inch | 3,980.000<br>SF | _____.____ | _____.____ |
| 0530 | 602.0505<br>Curb Ramp Detectable Warning Field Yellow | 264.000<br>SF | _____.____ | _____.____ |
| 0540 | 603.0405<br>Concrete Barrier Transition Section 32-Inch | 6.500<br>LF | _____.____ | _____.____ |
| 0550 | 606.0200<br>Riprap Medium | 23.000<br>CY | _____.____ | _____.____ |
| 0560 | 611.8115<br>Adjusting Inlet Covers | 3.000<br>EACH | _____.____ | _____.____ |
| 0570 | 611.9710<br>Salvaged Inlet Covers | 3.000<br>EACH | _____.____ | _____.____ |
| 0580 | 614.0010<br>Barrier System Grading Shaping Finishing | 20.000<br>EACH | _____.____ | _____.____ |
| 0590 | 614.0115<br>Anchorages for Steel Plate Beam Guard Type 2 | 2.000<br>EACH | _____.____ | _____.____ |
| 0600 | 614.0150<br>Anchor Assemblies for Steel Plate Beam Guard | 4.000<br>EACH | _____.____ | _____.____ |
| 0610 | 614.0200<br>Steel Thrie Beam Structure Approach | 42.000<br>LF | _____.____ | _____.____ |
| 0620 | 614.0220<br>Steel Thrie Beam Bullnose Terminal | 6.000<br>EACH | _____.____ | _____.____ |

Proposal ID: 20170509008 Project(s): 1370-15-71

Federal ID(s): WISC 2017266

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

| Proposal Line Number | Item ID<br>Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|---|---|---|---|---|
| 0630 | 614.0230<br>Steel Thrie Beam | 729.000<br>LF | _____.____ | _____.____ |
| 0640 | 614.0305<br>Steel Plate Beam Guard Class A | 575.000<br>LF | _____.____ | _____.____ |
| 0650 | 614.0345<br>Steel Plate Beam Guard Short Radius | 38.000<br>LF | _____.____ | _____.____ |
| 0660 | 614.0396<br>Guardrail Mow Strip Asphalt | 1,785.500<br>SY | _____.____ | _____.____ |
| 0670 | 614.0805<br>Crash Cushions Permanent Low Maintenance | 1.000<br>EACH | _____.____ | _____.____ |
| 0680 | 614.0920<br>Salvaged Rail | 509.000<br>LF | _____.____ | _____.____ |
| 0690 | 614.0925<br>Salvaged Guardrail End Treatments | 11.000<br>EACH | _____.____ | _____.____ |
| 0700 | 614.2300<br>MGS Guardrail 3 | 10,083.000<br>LF | _____.____ | _____.____ |
| 0710 | 614.2500<br>MGS Thrie Beam Transition | 480.000<br>LF | _____.____ | _____.____ |
| 0720 | 614.2610<br>MGS Guardrail Terminal EAT | 17.000<br>EACH | _____.____ | _____.____ |
| 0730 | 614.2620<br>MGS Guardrail Terminal Type 2 | 16.000<br>EACH | _____.____ | _____.____ |
| 0740 | 619.1000<br>Mobilization | 1.000<br>EACH | _____.____ | _____.____ |
| 0750 | 620.0300<br>Concrete Median Sloped Nose | 300.000<br>SF | _____.____ | _____.____ |
| 0760 | 625.0500<br>Salvaged Topsoil | 16,312.000<br>SY | _____.____ | _____.____ |
| 0770 | 627.0200<br>Mulching | 1,660.000<br>SY | _____.____ | _____.____ |
| 0780 | 628.1504<br>Silt Fence | 30,680.000<br>LF | _____.____ | _____.____ |

Proposal ID: 20170509008 Project(s): 1370-15-71

Federal ID(s): WISC 2017266

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

| Proposal Line Number | Item ID<br>Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|---|---|---|---|---|
| 0790 | 628.1520<br>Silt Fence Maintenance | 3,071.000<br>LF | _____.____ | _____.____ |
| 0800 | 628.1905<br>Mobilizations Erosion Control | 5.000<br>EACH | _____.____ | _____.____ |
| 0810 | 628.1910<br>Mobilizations Emergency Erosion Control | 5.000<br>EACH | _____.____ | _____.____ |
| 0820 | 628.2004<br>Erosion Mat Class I Type B | 14,211.000<br>SY | _____.____ | _____.____ |
| 0830 | 628.2008<br>Erosion Mat Urban Class I Type B | 490.000<br>SY | _____.____ | _____.____ |
| 0840 | 628.7010<br>Inlet Protection Type B | 24.000<br>EACH | _____.____ | _____.____ |
| 0850 | 628.7015<br>Inlet Protection Type C | 10.000<br>EACH | _____.____ | _____.____ |
| 0860 | 628.7504<br>Temporary Ditch Checks | 680.000<br>LF | _____.____ | _____.____ |
| 0870 | 628.7555<br>Culvert Pipe Checks | 51.000<br>EACH | _____.____ | _____.____ |
| 0880 | 628.7570<br>Rock Bags | 200.000<br>EACH | _____.____ | _____.____ |
| 0890 | 629.0210<br>Fertilizer Type B | 142.800<br>CWT | _____.____ | _____.____ |
| 0900 | 630.0130<br>Seeding Mixture No. 30 | 299.000<br>LB | _____.____ | _____.____ |
| 0910 | 630.0160<br>Seeding Mixture No. 60 | 9.500<br>LB | _____.____ | _____.____ |
| 0920 | 630.0200<br>Seeding Temporary | 25.000<br>LB | _____.____ | _____.____ |
| 0930 | 633.0100<br>Delineator Posts Steel | 534.000<br>EACH | _____.____ | _____.____ |
| 0940 | 633.0500<br>Delineator Reflectors | 714.000<br>EACH | _____.____ | _____.____ |
| 0950 | 634.0618<br>Posts Wood 4x6-Inch X 18-FT | 611.000<br>EACH | _____.____ | _____.____ |

Proposal ID: 20170509008 Project(s): 1370-15-71

Federal ID(s): WISC 2017266

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

| Proposal Line Number | Item ID<br>Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|---|---|---|---|---|
| 0960 | 634.0622<br>Posts Wood 4x6-Inch X 22-FT | 62.000<br>EACH | _____.____ | _____.____ |
| 0970 | 634.0816<br>Posts Tubular Steel 2x2-Inch X 16-FT | 18.000<br>EACH | _____.____ | _____.____ |
| 0980 | 635.0200<br>Sign Supports Structural Steel HS | 11,600.000<br>LB | _____.____ | _____.____ |
| 0990 | 635.0300<br>Sign Supports Replacing Base Connection Bolts | 76.000<br>EACH | _____.____ | _____.____ |
| 1000 | 636.0100<br>Sign Supports Concrete Masonry | 19.000<br>CY | _____.____ | _____.____ |
| 1010 | 636.0500<br>Sign Supports Steel Reinforcement | 1,156.000<br>LB | _____.____ | _____.____ |
| 1020 | 637.1220<br>Signs Type I Reflective SH | 9,653.500<br>SF | _____.____ | _____.____ |
| 1030 | 637.1230<br>Signs Type I Reflective F | 127.500<br>SF | _____.____ | _____.____ |
| 1040 | 637.2210<br>Signs Type II Reflective H | 6,352.120<br>SF | _____.____ | _____.____ |
| 1050 | 637.2215<br>Signs Type II Reflective H Folding | 366.820<br>SF | _____.____ | _____.____ |
| 1060 | 637.2230<br>Signs Type II Reflective F | 1,113.250<br>SF | _____.____ | _____.____ |
| 1070 | 638.2102<br>Moving Signs Type II | 3.000<br>EACH | _____.____ | _____.____ |
| 1080 | 638.2601<br>Removing Signs Type I | 50.000<br>EACH | _____.____ | _____.____ |
| 1090 | 638.2602<br>Removing Signs Type II | 500.000<br>EACH | _____.____ | _____.____ |
| 1100 | 638.3000<br>Removing Small Sign Supports | 527.000<br>EACH | _____.____ | _____.____ |
| 1110 | 638.3100<br>Removing Structural Steel Sign Supports | 16.000<br>EACH | _____.____ | _____.____ |

Proposal ID: 20170509008 Project(s): 1370-15-71

Federal ID(s): WISC 2017266

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

| Proposal Line Number | Item ID<br>Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|---|---|---|---|---|
| 1120 | 642.5201<br>Field Office Type C | 1.000<br>EACH | _____.____ | _____.____ |
| 1130 | 643.0100<br>Traffic Control (project) 01. 1370-15-71 | 1.000<br>EACH | _____.____ | _____.____ |
| 1140 | 643.0300<br>Traffic Control Drums | 233,250.000<br>DAY | _____.____ | _____.____ |
| 1150 | 643.0410<br>Traffic Control Barricades Type II | 448.000<br>DAY | _____.____ | _____.____ |
| 1160 | 643.0420<br>Traffic Control Barricades Type III | 13,105.000<br>DAY | _____.____ | _____.____ |
| 1170 | 643.0453<br>Traffic Control Barricades Permanent Type III | 12.000<br>EACH | _____.____ | _____.____ |
| 1180 | 643.0705<br>Traffic Control Warning Lights Type A | 26,210.000<br>DAY | _____.____ | _____.____ |
| 1190 | 643.0715<br>Traffic Control Warning Lights Type C | 20,294.000<br>DAY | _____.____ | _____.____ |
| 1200 | 643.0800<br>Traffic Control Arrow Boards | 696.000<br>DAY | _____.____ | _____.____ |
| 1210 | 643.0900<br>Traffic Control Signs | 31,672.000<br>DAY | _____.____ | _____.____ |
| 1220 | 643.0910<br>Traffic Control Covering Signs Type I | 32.000<br>EACH | _____.____ | _____.____ |
| 1230 | 643.0920<br>Traffic Control Covering Signs Type II | 1,280.000<br>EACH | _____.____ | _____.____ |
| 1240 | 643.1000<br>Traffic Control Signs Fixed Message | 590.000<br>SF | _____.____ | _____.____ |
| 1250 | 643.1050<br>Traffic Control Signs PCMS | 14.000<br>DAY | _____.____ | _____.____ |
| 1260 | 643.2000<br>Traffic Control Detour (project) 01. 1370-15-71 | 1.000<br>EACH | _____.____ | _____.____ |
| 1270 | 643.3000<br>Traffic Control Detour Signs | 8,043.000<br>DAY | _____.____ | _____.____ |

Proposal ID: 20170509008 Project(s): 1370-15-71

Federal ID(s): WISC 2017266

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

| Proposal Line Number | Item ID<br>Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|---|---|---|---|---|
| 1280 | 644.1410.S<br>Temporary Pedestrian Surface Asphalt | 120.000<br>SF | _____.____ | _____.____ |
| 1290 | 644.1601.S<br>Temporary Curb Ramp | 3.000<br>EACH | _____.____ | _____.____ |
| 1300 | 645.0120<br>Geotextile Type HR | 47.000<br>SY | _____.____ | _____.____ |
| 1310 | 646.0600<br>Removing Pavement Markings | 51,000.000<br>LF | _____.____ | _____.____ |
| 1320 | 646.0790.S<br>Removing Raised Pavement Markers | 850.000<br>EACH | _____.____ | _____.____ |
| 1330 | 646.0841.S<br>Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch | 33,105.000<br>LF | _____.____ | _____.____ |
| 1340 | 646.0843.S<br>Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch | 28,568.000<br>LF | _____.____ | _____.____ |
| 1350 | 646.0883.S<br>Pavement Marking Grooved Wet Reflective Tape 8-Inch | 2,973.000<br>LF | _____.____ | _____.____ |
| 1360 | 646.2304.S<br>Pavement Marking Grooved Wet Reflective Epoxy 4-Inch | 325,484.000<br>LF | _____.____ | _____.____ |
| 1370 | 647.0136<br>Pavement Marking Arrows Epoxy Type 7 | 1.000<br>EACH | _____.____ | _____.____ |
| 1380 | 647.0166<br>Pavement Marking Arrows Epoxy Type 2 | 13.000<br>EACH | _____.____ | _____.____ |
| 1390 | 647.0176<br>Pavement Marking Arrows Epoxy Type 3 | 7.000<br>EACH | _____.____ | _____.____ |
| 1400 | 647.0186<br>Pavement Marking Arrows Epoxy Type 4 | 32.000<br>EACH | _____.____ | _____.____ |
| 1410 | 647.0356<br>Pavement Marking Words Epoxy | 15.000<br>EACH | _____.____ | _____.____ |
| 1420 | 647.0566<br>Pavement Marking Stop Line Epoxy 18-Inch | 431.000<br>LF | _____.____ | _____.____ |

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SECTION: 0001 Contract Items

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|---|---|---|---|---|
| 1430 | 647.0606<br>Pavement Marking Island Nose Epoxy | 1.000<br>EACH | _____.____ | _____.____ |
| 1440 | 647.0726<br>Pavement Marking Diagonal Epoxy 12-Inch | 40.000<br>LF | _____.____ | _____.____ |
| 1450 | 647.0746<br>Pavement Marking Diagonal Epoxy 24-Inch | 3,260.000<br>LF | _____.____ | _____.____ |
| 1460 | 647.0766<br>Pavement Marking Crosswalk Epoxy 6-Inch | 1,499.000<br>LF | _____.____ | _____.____ |
| 1470 | 649.0400<br>Temporary Pavement Marking Removable Tape 4-Inch | 72,060.000<br>LF | _____.____ | _____.____ |
| 1480 | 649.0402<br>Temporary Pavement Marking Paint 4-Inch | 223,760.000<br>LF | _____.____ | _____.____ |
| 1490 | 650.4500<br>Construction Staking Subgrade | 8,850.000<br>LF | _____.____ | _____.____ |
| 1500 | 650.7000<br>Construction Staking Concrete Pavement | 16,454.000<br>LF | _____.____ | _____.____ |
| 1510 | 650.8000<br>Construction Staking Resurfacing Reference | 86,779.000<br>LF | _____.____ | _____.____ |
| 1520 | 650.8500<br>Construction Staking Electrical Installations (project) 01. 1370-15-71 | LS | LUMP SUM | _____.____ |
| 1530 | 650.9910<br>Construction Staking Supplemental Control (project) 01. 1370-15-71 | LS | LUMP SUM | _____.____ |
| 1540 | 650.9920<br>Construction Staking Slope Stakes | 18,150.000<br>LF | _____.____ | _____.____ |
| 1550 | 652.0225<br>Conduit Rigid Nonmetallic Schedule 40 2-Inch | 540.000<br>LF | _____.____ | _____.____ |
| 1560 | 652.0800<br>Conduit Loop Detector | 98.000<br>LF | _____.____ | _____.____ |

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Federal ID(s): WISC 2017266

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

| Proposal Line Number | Item ID<br>Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|---|---|---|---|---|
| 1570 | 653.0135<br>Pull Boxes Steel 24x36-Inch | 16.000<br>EACH | _____.____ | _____.____ |
| 1580 | 653.0900<br>Adjusting Pull Boxes | 2.000<br>EACH | _____.____ | _____.____ |
| 1590 | 653.0905<br>Removing Pull Boxes | 2.000<br>EACH | _____.____ | _____.____ |
| 1600 | 654.0105<br>Concrete Bases Type 5 | 19.000<br>EACH | _____.____ | _____.____ |
| 1610 | 654.0220<br>Concrete Control Cabinet Bases Type 10 | 16.000<br>EACH | _____.____ | _____.____ |
| 1620 | 655.0615<br>Electrical Wire Lighting 10 AWG | 2,880.000<br>LF | _____.____ | _____.____ |
| 1630 | 655.0700<br>Loop Detector Lead In Cable | 884.000<br>LF | _____.____ | _____.____ |
| 1640 | 655.0800<br>Loop Detector Wire | 392.000<br>LF | _____.____ | _____.____ |
| 1650 | 657.0100<br>Pedestal Bases | 16.000<br>EACH | _____.____ | _____.____ |
| 1660 | 657.0255<br>Transformer Bases Breakaway 11 1/2-Inch Bolt Circle | 19.000<br>EACH | _____.____ | _____.____ |
| 1670 | 657.0321<br>Poles Type 5-Steel | 16.000<br>EACH | _____.____ | _____.____ |
| 1680 | 657.0322<br>Poles Type 5-Aluminum | 3.000<br>EACH | _____.____ | _____.____ |
| 1690 | 657.0425<br>Traffic Signal Standards Aluminum 15-FT | 16.000<br>EACH | _____.____ | _____.____ |
| 1700 | 662.2026.S<br>Ramp Closure Gates Solar 26-FT | 2.000<br>EACH | _____.____ | _____.____ |
| 1710 | 662.2030.S<br>Ramp Closure Gates Solar 30-FT | 2.000<br>EACH | _____.____ | _____.____ |
| 1720 | 662.2037.S<br>Ramp Closure Gates Solar 37-FT | 2.000<br>EACH | _____.____ | _____.____ |

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SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

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|---|---|---|---|---|
| 1730 | 662.2040.S<br>Ramp Closure Gates Solar 40-FT | 10.000<br>EACH | _____._____ | _____._____ |
| 1740 | 662.3026.S<br>Ramp Closure Gate Arms Stockpile 26-FT | 2.000<br>EACH | _____._____ | _____._____ |
| 1750 | 662.3030.S<br>Ramp Closure Gate Arms Stockpile 30-FT | 2.000<br>EACH | _____._____ | _____._____ |
| 1760 | 662.3037.S<br>Ramp Closure Gate Arms Stockpile 37-FT | 2.000<br>EACH | _____._____ | _____._____ |
| 1770 | 662.3040.S<br>Ramp Closure Gate Arms Stockpile 40-FT | 4.000<br>EACH | _____._____ | _____._____ |
| 1780 | 662.4000.S<br>Ramp Closure Gate Flashers Stockpile | 30.000<br>EACH | _____._____ | _____._____ |
| 1790 | 662.6030.S<br>Ramp Closure Barricade Rack 3-Unit | 4.000<br>EACH | _____._____ | _____._____ |
| 1800 | 674.0200<br>Cable Microwave Detector | 275.000<br>LF | _____._____ | _____._____ |
| 1810 | 674.0300<br>Remove Cable | 435.000<br>LF | _____._____ | _____._____ |
| 1820 | 675.0300<br>Install Mounted Controller Microwave Detector Assembly | 3.000<br>EACH | _____._____ | _____._____ |
| 1830 | 690.0150<br>Sawing Asphalt | 3,138.000<br>LF | _____._____ | _____._____ |
| 1840 | 690.0250<br>Sawing Concrete | 41,700.000<br>LF | _____._____ | _____._____ |
| 1850 | 715.0415<br>Incentive Strength Concrete Pavement | 1,923.000<br>DOL | 1.00000 | 1,923.00 |
| 1860 | ASP.1T0A<br>On-the-Job Training Apprentice at $5.00/HR | 4,000.000<br>HRS | 5.00000 | 20,000.00 |
| 1870 | ASP.1T0G<br>On-the-Job Training Graduate at $5.00/HR | 6,000.000<br>HRS | 5.00000 | 30,000.00 |

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Alt Set ID: Alt Mbr ID:

| Proposal Line Number | Item ID<br>Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|---|---|---|---|---|
| 1880 | SPV.0060<br>Special 01. Install Conduit Into Existing Item | 3.000<br>EACH | _____._____ | _____._____ |
| 1890 | SPV.0060<br>Special 02. Install Microwave Detector Module, 2 Port | 9.000<br>EACH | _____._____ | _____._____ |
| 1900 | SPV.0060<br>Special 03. HMA Percent Within Limits (PLW) Test Strip | 3.000<br>EACH | _____._____ | _____._____ |
| 1910 | SPV.0060<br>Special 04. Section Corner Monuments Special | 1.000<br>EACH | _____._____ | _____._____ |
| 1920 | SPV.0090<br>Special 01. Remove Pavement Marking Grooved Tape | 15,780.000<br>LF | _____._____ | _____._____ |
| 1930 | SPV.0105<br>Special 01. Remove Loop Detector Wire and Lead-in Cable STH 16 WB Ramps & CTH JJ | LS | LUMP SUM | _____._____ |
| 1940 | SPV.0105<br>Special 02. Remove Loop Detector Wire and Lead-In Cable STH 16 EB Ramps & STH 83 | LS | LUMP SUM | _____._____ |
| 1950 | SPV.0105<br>Special 03. Milling And Removing Temporary Joint | LS | LUMP SUM | _____._____ |
| 1960 | SPV.0180<br>Special 02. Resin Binder High Friction Surface Treatment | 25,620.000<br>SY | _____._____ | _____._____ |
| 1970 | SPV.0195<br>Special 01. Joint And Crack Repair | 550.000<br>TON | _____._____ | _____._____ |
| | Section: 0001 | | Total: | _____._____ |

Total Bid: _____._____

# PLEASE ATTACH SCHEDULE OF ITEMS HERE