

HIGHWAY WORK PROPOSALWisconsin Department of Transportation
DT1502 10/2010 s.66.29(7) Wis. Stats.

Proposal Number:

16

<u>COUNTY</u>	<u>STATE PROJECT ID</u>	<u>FEDERAL PROJECT ID</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>
Brown/ Outagamie	1130-44-71	WISC 2016 475	Appleton - Green Bay CTH J - Orange Lane	IH 41

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, \$ 400,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: December 13, 2016 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code
Contract Completion Time July 1, 2018	SAMPLE NOT FOR BIDDING PURPOSES
Assigned Disadvantaged Business Enterprise Goal 5 %	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 Concrete pavement, concrete pavement repair, concrete base, concrete barrier wall, HMA pavement, milling, concrete overlay, bridge re-decking, polymer overlay, cable guard, beam guard, clearing and grubbing, storm sewer, signing, pavement marking, slope paving and other miscellaneous items.	Date Guaranty Returned
Notice of Award Dated	

**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 ExpressTM web site.
 2. Use ExpediteTM software to enter a unit price for every item in the schedule of items.
 3. Submit the bid according to the requirements of ExpediteTM software and the Bid ExpressTM web site. Do not submit a bid on a printout with accompanying diskette or CD ROM or a paper bid. If the bidder does submit a bid on a printout with accompanying diskette or a paper bid in addition to the internet submittal, the department will disregard the internet bid.
 4. Submit the bid before the hour and date the Notice to Contractors designates.
 5. Do not sign, notarize, and return the bidding proposal described in 102.2 of the standard specifications.
- (3) The department will not consider the bid accepted until the hour and date the Notice to Contractors designates.

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

- (1) Download the latest schedule of items from the Wisconsin pages of the Bid ExpressTM web site reflecting the latest addenda posted on the department's web site at:
<http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx>
Use ExpediteTM 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 ExpressTM web site to assure that the schedule of items is prepared properly.
- (2) Staple an 8 1/2 by 11 inch printout of the ExpediteTM generated schedule of items to the other proposal documents submitted to the department as a part of the bidder's sealed bid. As a separate submittal not in the sealed bid envelop but due at the same time and place as the sealed bid, also provide the ExpediteTM generated schedule of items on a 3 1/2 inch computer diskette or CD ROM. Label each diskette or CD ROM with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette or CD ROM as indicated in the following example:

Bidder

Name

BN00

Proposals: 1, 12, 14, & 22

- (3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette or CD ROM. Include only submitted proposals with no incomplete or other files on the diskette or CD ROM.
- (4) The bidder-submitted printout of the ExpediteTM generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette or CD ROM, the department will analyze the bid using the printout information.

- (5) In addition to the reasons specified in [section 102](#) of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:
1. The check code printed on the bottom of the printout of the ExpediteTM generated schedule of items is not the same on each page.
 2. The check code printed on the printout of the ExpediteTM generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.
 3. The diskette or CD ROM is not submitted at the time and place the department designates.

C Waiver of Electronic Submittal

- (1) The bidder may request a waiver of the electronic submittal requirements. Submit a written request for a waiver in lieu of bids submitted on the internet or on a printout with accompanying diskette or CD ROM. Use the waiver that was included with the paper bid document sent to the bidder or type up a waiver on the bidder's letterhead. The department will waive the electronic submittal requirements for a bidding entity (individual, partnership, joint venture, corporation, or limited liability company) for up to 4 individual proposals in a calendar year. The department may allow additional waivers for equipment malfunctions.
- (2) Submit a schedule of items on paper conforming to [section 102](#) of the standard specifications. The department charges the bidder a \$75 administrative fee per proposal, payable at the time and place the department designates for receiving bids, to cover the costs of data entry. The department will accept a check or money order payable to: "Wisconsin, Dept. of Transportation."
- (3) In addition to the reasons specified in [section 102](#) of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:
 1. The bidder fails to provide the written request for waiver of the electronic submittal requirements.
 2. The bidder fails to pay the \$75 administrative fee before the time the department designates for the opening of bids unless the bidder requests on the waiver that they be billed for the \$75.
 3. The bidder exceeds 4 waivers of electronic submittal requirements within a calendar year.
- (4) In addition to the reasons specified in [section 102](#) of the standard specifications, the department may refuse to issue bidding proposals for future contracts to a bidding entity that owes the department administrative fees for a waiver of electronic submittal requirements.

PROPOSAL BID BOND

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

(Signature of Attorney-in-Fact)

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

(Signature of Authorized Contractor Representative)

(Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

[illegible]

DECEMBER 2000

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

Instructions for Certification

1. By signing and submitting this proposal, the prospective contractor is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department determined to enter into this transaction. If it is later determined that the contractor knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government the department may terminate this transaction for cause or default.
4. The prospective contractor shall provide immediate written notice to the department to whom this proposal is submitted if at any time the prospective contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective contractor agrees by submitting this proposal that, should this contract be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department entering into this transaction.
7. The prospective contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," which is included as an addendum to PR-1273 - "Required Contract Provisions Federal Aid Construction Contracts," without

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

8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

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

- (1) The prospective contractor certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offense enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective contractor is unable to certify to any of the statements in this certification, such prospective contractor shall attach an explanation to this proposal.

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1130-44-71, Appleton – Green Bay, CTH J – Orange Lane, I-41, Brown and Outagamie Counties, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2017 Edition, as published by the department, and these special provisions.

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

100-005 (20160607)

2. Scope of Work.

The work under this contract shall consist of milling and resurfacing, concrete pavement repair along I-41, approach slab replacement, bridge deck replacement and concrete overlays at Apple Creek/I-41, cable guard installation, polymer high friction surface treatment application on bridge decks, beam guard upgrades, grading, subbase, base, concrete pavement, storm sewer, culvert pipe replacements and lining, signing, pavement marking, landscaping 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.

Check for and comply with local ordinances governing the hours of operation of construction equipment.

Oversized Over Weight Trucking Operations

Notify the Department's traffic section a minimum of two weeks prior to installing temporary barrier wall along I-41 for Stages 2 and 3. Contact Rod Hamilton, Traffic Engineer, at (920) 492-5652.

Fence Installation Notification

Notify the Department's maintenance section a minimum of two weeks prior to permanent fence installation for final installation location. Contact Kurt Wranovsky, Maintenance Supervisor, at (920) 492-5645.

Fish Spawning

There shall be no instream disturbance of Ashwaubenon or Apple Creek as a result of construction activity under or for this contract, from March 1 to June 15 both dates inclusive, in order to avoid adverse impacts upon the spawning of northern pike and forage species.

Any change to this limitation will require submitting a written request by the contractor to the engineer, subsequent review and concurrence by the Department of Natural Resources in the request, and final approval by the engineer. The approval will include all conditions to the request as mutually agreed upon by WisDOT and DNR.

Migratory Birds

Swallow and other migratory birds' nests have been observed on or under the existing bridge. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act.

The nesting season for swallows and other birds is usually between May 1 and August 30. Either prevent active nests from becoming established, or apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds, or clearing nests from all structures before the nests become active in early spring. As a last resort, prevent birds from nesting by installing a suitable netting device on the remaining structure prior to nesting activity. Include the cost for preventing nesting in the cost of Structure Repainting Recycled Abrasive.

Traffic/Construction Overview

The schedule of operations shall conform to the construction staging as shown in the traffic control plans and special provisions, unless the engineer approves modifications to the staging in writing.

Closure of sequential interchanges along I-41 is not allowed.

All shoulder work including milling and paving shall be done with full lane closures or ramp closures. Do not allow the milled surface to remain exposed for a period greater than 72 hours.

Interim Liquidated Damages

2017 Interim Completion

Complete all work, with the exception of the polymer overlay on B-5-53 and B-5-80, prior to 12:01 AM, November 15, 2017.

If the contractor fails to complete the above work prior to 12:01 AM, November 15, 2017, the department will assess the contractor \$2,065 in interim liquidated damages for each calendar day that the work remains incomplete beyond 12:01 AM, November 15, 2017. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

CTH U off ramp

During Stage 2 operations, the northbound I-41 CTH U off ramp, inclusive of northbound I-41 outside shoulder from Station 1391+00 NB to Station 1400+50 NB, can be closed to vehicular traffic for a period of up to 15 consecutive calendar days. Complete all work and coordination measures necessary to open the northbound I-41 CTH U off ramp for vehicular traffic under this contract within 15 consecutive calendar days. This work includes pavement markings, signing, restoration items and all incidentals necessary for opening.

If the contractor fails to complete the above work within 15 consecutive calendar days, the department will assess the contractor \$2,065 in interim liquidated damages for each calendar day that the work remains incomplete beyond 12:01 AM. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

CTH S

CTH S can be closed to vehicular traffic, between the northbound and southbound I-41 ramps for a period of up to 15 consecutive calendar days. Complete all work and coordination measures necessary to open CTH S for vehicular traffic under this contract within 15 consecutive calendar days. This work includes pavement markings, signing, restoration items and all incidentals necessary for opening.

If the contractor fails to complete the above work within 15 consecutive calendar days, the department will assess the contractor \$2,065 in interim liquidated damages for each calendar day that the work remains incomplete beyond 12:01 AM. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

SWEF 34

The Wrightstown Safety Weight Enforcement Facility (SWEF 34) entry and exit ramps will allowed to be closed for the duration of Stage 2/2A.

I-41/CTH S Park and Ride

Stage construction for the expansion of the CTH S Park and Ride such that existing parking capacity levels are maintained throughout construction. A minimum of one access point to the Park and Ride shall be maintained for public ingress/egress at all times.

Traffic Impact Response Time Credit

Provide a preferred method of notification and a designated person that is available 24 hours per day, 7 days per week, to respond to any event that impacts the free flow of traffic during non-working hours. The designated person shall respond within 2 hours of being notified by the engineer. Notification is defined as the first phone call/voice message, text message or e-mail. Impacts to traffic may include, but are not limited to, temporary barrier wall that has been moved from its original position, water ponding on the travel lanes, or temporary pavement deterioration. The contractor's designated person needs to be able to promptly address the issues impacting traffic once notified by the engineer.

Failure to respond onsite and start implementation of corrective actions within 2 hours will result in the department issuing a deduction of \$500 per hour at the start of the third hour beyond the initial notification by the engineer. The department will administer the deduction for the road, or portion thereof, not being open to traffic under the Failing to Open Road to Traffic administrative item.

4. Traffic.

Staging

Work shall be staged in halves in order to maintain two lanes of traffic in each direction on I-41 for Apple Creek structure improvements. Staged construction will involve transitioning lane configurations to a 3/1 layout (3 lanes on one side of I-41 and 1 remaining on the work zone side) between the north and south temporary crossovers. See Traffic Control plans for details of each respective stage.

Stage 1

- Construct south and north temporary median crossovers, southbound and northbound mainline work, and all items necessary to switch traffic for Stage 2.

Stage 2/2A

- Construct bridge re-deck on B-05-0053 (Apple Creek northbound).

Stage 3/3A

- Construct deck concrete overlay on B-05-0080 (Apple Creek southbound).

Stage 4

- Perform final restoration for the project.

Work outside the staged construction area is to be completed under single lane closures as allowed in the Traffic Section, unless otherwise approved by the engineer.

Lane Closures Allowed

I-41

I-41 shall be maintained at two lanes in each direction with the exception of the following restrictions. During I-41 reconditioning operations, a minimum of one lane of traffic in both directions shall be maintained at all times. Single lane closures on I-41 are only permitted during the following times for all operations not protected by temporary precast barrier or otherwise approved by the engineer:

- I-41 northbound and southbound: 7:00 PM Monday, Tuesday, Wednesday, and Thursday to 6:00 AM the following day
- I-41 northbound: 7:00 PM Friday to 9:00 AM Saturday
- I-41 northbound: 6:00 PM Saturday to 6:00 AM Monday

- I-41 southbound: 7:00 PM Friday to 10:00 AM Saturday
- I-41 southbound: 7:00 PM Saturday to 10:00 AM Sunday
- I-41 southbound: 6:00 PM Sunday to 6:00 AM Monday

CTH S

Lane closures along the I-41 ramps at CTH S are only permitted for this work during the following times:

- I-41 northbound: On-ramp 7:00 PM to 6:00 AM; Off-ramp 6:00 PM to 6:00 AM (daily)
- I-41 southbound: On-ramp 6:00 PM to 6:00 AM; Off-ramp 7:00 PM to 6:00 AM (daily)

Ramp closures for CTH S cannot be done concurrently with CTH U ramp closures for the same direction of travel.

CTH U

Lane closures along the I-41 ramps at CTH U are only permitted for this work during the following times:

- I-41 northbound: On-ramp 7:00 PM to 6:00 AM; Off-ramp 6:00 PM to 7:00 AM (daily)
- I-41 southbound: On-ramp 6:00 PM to 6:00 AM; Off-ramp 7:00 PM to 7:00 AM (daily)

Ramp closures for CTH U cannot be done concurrently with CTH S ramp closures for the same direction of travel.

During Stage 2/2A, CTH U NB off/on ramps shall remain open with the following exceptions:

- Off ramp closed for 15 consecutive days for reconstruction of ramp.
- On ramp closed for pavement repair and shoulder replacement.
- Replace of culvert pipes at: 1386+69NB*, 1393+53NB*, & 1316+96NB**.

Closures of CTH U mainline can only occur with the following ramp closures:

- I-41 southbound off-ramp must be closed when closure of CTH U northbound is in place. Closure of I-41 northbound on-ramp is not allowed during the CTH U northbound full closure.
- I-41 southbound on-ramp must be closed when closure of CTH U southbound is in place.

I-41 Bridge Decks - Polymer Overlay

Lane closures along I-41 will be allowed from 7:00 PM Friday to 6:00 AM Monday for northbound bridges and 6:00 PM Friday to 11:00 AM Sunday for southbound bridges. Polymer overlay work shall take place during one weekend per closure location (see below) to complete the polymer overlay work. Work on the bridge decks shall be conducted in halves under single lane closures. PCMS boards shall be in place 3 business days prior to work occurring.

- Closure Location 1 – Wrightstown Rd/CTH JJ structures
- Closure Location 2 – CTH U/Apple Creek structures
- Closure Location 3 – Little Rapids Rd structure

Locations 1 and 2 shall be conducted with a continuous lane closure between the respective bridge locations.

Conduct CTH U concrete shoulder repair under a separate weekend closure from the polymer overlay work during Stage 1 per the traffic control plans.

The polymer overlay application on the B-5-53 (Apple Creek northbound) and B-5-80 (Apple Creek southbound) bridge decks shall be completed in the same construction season as the application begins. If the B-5-53 and B-5-80 polymer overlay work cannot be completed in the 2017 construction season, this work will be carried into the 2018 construction season.

Wisconsin Lane Closure System Advance Notification

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date.

108-057 (20160607)

Portable Changeable Message Signs – Message Prior Approval

After coordinating with department construction field staff, notify the Northeast Region Traffic Section at (920) 492-7165 (secondary contact number is (920) 492-7719) three business days prior to deploying or changing a message on a PCMS to obtain approval of the proposed message. The Northeast Region Traffic Unit will review the proposed message and either approve the message or make necessary changes.

(NER15-1112)

Roadside Hazard Protection During Construction

Conduct existing beam guard removal in a manner to allow timely installation of permanent beam guard. Bridge pier columns and parapets are to remain protected at all times throughout construction. Removal of existing beam guard shall be done concurrently with the placement of the permanent beam guard so that the bridge pier columns/parapets remain protected at all times.

5. Temporary Regulatory Speed Limit Reduction-Lane Closures.

A reduction of the posted regulatory speed limit from 70 mph to 55 mph is required when any of the following conditions are created within the project limits: 1. Lane(s) closed and workers are present and active in close proximity to an open lane. 2. Lane(s) narrowed to less than 12 feet and adjacent shoulder width is reduced. 3. Traffic is shifted partly or completely onto a shoulder and/or temporary pavement and shoulder width is reduced. At all other times the posted regulatory speed limit shall be 70 mph.

During periods when traffic conditions do not require a Temporary Regulatory Speed Reduction, speed limit signs shall be changed to the permanent posted speed limit. This may require posted speed sign changes twice a day or more. Changing temporary and existing/permanent signs between 70 mph and 55 mph shall be considered incidental to the item Traffic Control.

No portion of sign text shall be visible when not in use, regardless if it is temporary or permanent regulatory speed limit sign.

During approved temporary regulatory speed limit reductions, install regulatory speed limit signs on the inside and outside shoulders of the roadway at the beginning of the reduced regulatory speed zone, after all locations where traffic may enter the highway segment or every ½ mile within the reduced regulatory speed zone. Signs shall be installed 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 mph. To minimize possible confusion to the traveling public and to ensure appropriate speed enforcement, enhanced attention to placement and changing of speed limit signs is required.

Coordinate with Department construction field staff to notify the Northeast Region Traffic Section with field location(s) of the temporary regulatory speed zone. Primary contact phone number: (920) 492-5652 (secondary contact number is (920) 492-7165). Contact the Northeast Region Traffic Section at least 14 calendar days prior to installation of the temporary regulatory speed zone. After notification, Northeast Region Traffic will create a “Temporary Speed Zone Declaration” to meet statutory requirements, allowing enforcement of this temporary regulatory speed limit.

When construction activities impede the location of a post mounted regulatory speed limit sign, mount the regulatory speed limit sign on portable supports that meet the “crashworthy” definition and height criteria in the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).
NER (04022015)

6. Lane Rental Fee Assessment.

A General

The contract designates some lane closures to perform the work. No Lane Rental Fee Assessments will be charged for closing lanes during the allowable lane closure times. If a lane is closed outside of the allowable lane closure times, the contractor will be subject to Lane Rental Fee Assessments. If a lane is obstructed at any time due to contractor operations, it is considered a closure. 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. The contractor will coordinate lane, ramp, and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project.

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

A.1 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:

- \$500 per lane per 15-minutes for I-41.
- \$125 per ramp or lane per 15-minutes on CTH U and CTH S, including interchange ramps.

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

Lane Rental Fee Assessments will be made based on the applicable rate for any and all closures whether work is being performed or not. The engineer, or designated representative, will be the sole authority in determining time period length for the Lane Rental Fee Assessment.

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

B (Vacant)

C (Vacant)

D Measurement

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

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance.

E (Vacant)

7. Holiday and Other Work Restrictions.

I-41 shall be restored to two lanes in each direction during the following periods. Do not perform work on, nor haul materials of any kind along or across, any portion of the highway carrying I-41 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/other periods:

- From 5:00 PM Friday to 10:00 PM Friday, May 5, 2017 for opening Fishing Season;
- From noon Friday, May 26, 2017 to 5:00 AM Tuesday, May 30, 2017 for Memorial Day;
- From noon Friday, June 30, 2017 to 5:00 AM Wednesday July 5, 2017 for Independence Day;
- From noon Friday, September 1, 2017 to 5:00 AM Tuesday, September 5, 2017 for Labor Day.

8. Special Events.

I-41 shall be restored to two lanes in each direction during the following periods. Do not perform work on, nor haul materials of any kind along or across, any portion of the highway carrying I-41 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 special event periods:

- Green Bay Packer home games and Packer Family Scrimmage: From five hours prior to game until 5 hours after the game for I-41;
- Other events at Lambeau Field with 30,000 or greater attendance: From five hours prior to game until 5 hours after the game for I-41.

If the contractor fails to restore I-41 to two lanes in each direction during the above times, the department will assess the contractor \$1,750 per lane in liquidated damages for each hour I-41 is not restored to two lanes in each direction. The department will administer interim liquidated damages for the road not being open to traffic under the Failing to Open Road to Traffic administrative item.

Prior to preparing bids, verify the dates of each festival, game, or event listed to obtain current dates for work restrictions.

9. Utilities.

This contract comes under the provisions of Wisconsin Administrative Code Chapter Trans 220.

107-065 (20080501)

There are utility facilities within the construction limits of this project. Additional detailed information regarding the location of discontinued, relocated, and/or removed utility

facilities is available in the work plan provided by each utility company. View these documents at the Regional Office during normal working hours.

Work around or remove and dispose of any discontinued utility conduits, cables, and pipes encountered during excavation. Any removal and disposal shall be incidental to common excavation, unless specified otherwise in this contract as a separate bid item.

When interpreting the term “working days” within the “Utilities” article of these special provisions (and only within this article), use the definition provided in Trans 220.03(20) of the Wisconsin Administrative Code rather than the definition provided in standard spec 101.3.

ANR Pipeline Company has a 30 inch high pressure natural **gas** pipeline crossing at Station 1389+50 and two 6 inch and 8 inch high pressure natural gas pipeline crossings at Station 1481+00. No conflicts are anticipated.

Notify ANR Pipeline Company 3 working days in advance of excavating within 25 feet of pipeline facilities.

Coordinate with Matt Hischke, (715) 758-3345, or matthew_hischke@transcanada.com) during construction.

AT&T Wisconsin has buried **communication** cable crossings at the following Stations:

- 1217+04 Northbound and 1216+33 Southbound, 600 pair copper and 24 fiber
- 1303+42 Northbound and 1303+45 Southbound, 25 pair copper
- 1397+68 Northbound and 1397+45 Southbound, 400 pair copper and 24 fiber
- 1340+25 Northbound and 1340+00 Southbound, 100 pair copper
- 1364+95 Northbound and 1364+92 Southbound, 50 pair copper
- 1386+10 Northbound and 1386+14 Southbound, 100 pair copper
- 1401+80 Northbound and 1401+59 Southbound, 200 pair copper
- 1436+05 Northbound and 1436+96 Southbound, 100 pair copper

No conflict are anticipated.

Coordinate with Joe Kassab, (920) 735-3206, or jk572k@att.com) during construction.

ATC Management, Inc has overhead **electric** facility crossings at the following Stations:

- 1199
- 1307
- 1414
- 1515
-

No conflicts are anticipated.

Coordinate with Doug Vosberg, (608) 877-7650, or dvosberg@atellc.com) during construction.

City of Kaukauna has sanitary **sewer** facilities in the project limits. No conflicts are anticipated.

Coordinate with John Neumeier, (920) 766-6305, (920) 419-5939, or neumeier@kaukauna-wi.org) during construction.

Guardian Pipeline has a 20 inch high pressure **gas** pipeline crossing at Station 1424+00. No conflicts are anticipated.

Coordinate with Jude Mengel, (920) 464-1200, (262) 374-2758, or jude.mengel@oneok.com) or Adam Theis, (920) 464-1200, (262) 374-2756 or adam.theis@oneok.com) during construction.

Kaukauna Utilities has **electric** facilities within the project limits. No conflicts are anticipated.

Coordinate with Eric Miller, (920) 462-0214, (920) 419-2424, or emiller@ku-wi.org) during construction.

Kaukauna Utilities has **watermain** crossing at Station 1198. No conflicts are anticipated.

Coordinate with Kevin Obiala. (920) 462-0233, (920) 470-4951, or kobiala@ku-wi.org) during construction.

TDS Metrocom has buried **communication** facilities in the project limits. No conflicts are anticipated.

Coordinate with Steve Jakubiec, (920) 882-4166, (920) 562-7211, or steve.jakubiec@tdstelecom.com) during construction.

Time Warner Cable has **communication** facilities within the project limits. No conflicts are anticipated.

Coordinate with Vince Albin, (920) 831-9249, (920) 378-0444, or vince.albin@twcable.com) during construction.

US Signal Company LLC has a buried **fiber** cable crossing at Station 1251+16 Northbound and Station 1250+56 Southbound. No conflicts are anticipated.

Coordinate with Rick Andricks, (410) 486-4320, or randricks@tkns.net) during construction.

We Energies has **gas main** in the project limits. No conflicts are anticipated.

Coordinate with Zach Duga, (920) 380-3458, (920) 450-9314, or zachary.duga@we-energies.com) during construction.

Wisconsin Public Service Corporation has **electric** facilities in the project limits. No conflicts are anticipated.

Coordinate with Randy Steier, (920) 617-5167, (920) 655-1596, or rdsteier@wisconsinpublicservice.com) during construction.

Wisconsin Public Service Corporation has **gas main** in the project limits. No conflicts are anticipated.

Coordinate with David Retzlaff, (920) 617-5237, (920) 604-1861, or dpretzlaff@wisconsinpublicservice.com) during construction.

10. 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 Tim Rank at (920) 360-2579.
107-054 (20080901)

11. Environmental Protection, Wetlands.

Add the following to standard spec 107.18 follows:

The contractor shall not disturb nor store materials or topsoil within the nearby wetlands as shown on the erosion control sheets unless areas are designated to be filled or impacted as permitted in the project's U.S. Army Corps of Engineers Section 404 Permit. The work area shall be separated from the wetlands by silt fence, as shown on the plans, to avoid siltation and inadvertent fill into the wetland areas.

12. Environmental Protection, Phragmites.

Add the following to standard spec 107.18 follows:

Phragmites is an invasive species plant. Locations identified to have Phragmites shall be buried to a minimum of 2-feet below finished ground but outside of the 1:1 fill slopes. Reuse of the Phragmites soil as salvaged topsoil in areas where the plant currently exists is also allowed.

For all equipment that comes into contact with Phragmites infested areas, follow the guidelines established under the Environmental Protection, Aquatic Exotic Species Control section of this special provision for inspection and cleaning of equipment prior to leaving the project site.

13. Environmental Protection, Dewatering.

Add the following to standard spec 107.18 follows:

If dewatering is required, treat the water to remove suspended sediments by filtration, settlement or other appropriate best management practice prior to discharge. The means and methods proposed to be used during construction shall be submitted for approval as part of the Erosion Control Implementation Plan for dewatering at each location it is required. The submittal shall also include the details of how the intake will be managed to not cause an increase in the background level turbidity prior to treatment and any additional erosion controls necessary to prevent sediments from reaching the project limits or wetlands and waterways. Guidance on dewatering can be found on the Wisconsin Department of Natural Resources website located in the Storm Water Construction Technical Standards, Dewatering Code #1061, "Dewatering". This document can be found at the WisDNR website: http://dnr.wi.gov/topic/stormwater/standards/const_standards.html

The cost of all work and materials associated with water treatment and/or dewatering is incidental to the bid items the work is associated.
(NER12-1010)

14. Environmental Protection, Aquatic Exotic Species Control.

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

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

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

1. Prior to leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
2. Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;
3. Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can prior to leaving the area or infested waters; and
4. Disinfect your boat, equipment and gear by either:
 - a. Washing with ~212° F water (steam clean), or
 - b. Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
 - c. Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore this disinfect should be used in conjunction with a hot water (>104° F) application.

Complete the inspection and removal procedure before equipment is brought to the project site and before the equipment leaves the project site.

107-055 (20130615)

15. Environmental Protection, (Amphibian or Reptile Species).

Wood turtles, a state threatened species, are known to inhabit Ashwaubenon Creek and its riparian area. It is reasonable to assume that wood turtles may be present at or near the project site during construction. If project construction starts in the spring, protect the perimeter of the areas to be disturbed with properly trenched-in silt fence prior to May 1 to discourage turtles from entering the work area. If the construction area cannot be silt-fenced by May 1, install the silt fence prior to construction activities. Also, survey the area behind the silt fence and remove all turtles confined within the project area prior to any site disturbance. Complete the survey and removal of turtles from construction areas periodically throughout the construction period.

(NER11-0127)

16. Construction Over or Adjacent to Navigable Waters.

Add the following to standard spec 107.19:

Apple Creek and Ashwaubenon Creek are classified as a navigable waterways.
107-060 (20150630)

17. Erosion Control Structures.

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

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

107-070 (20030820)

18. Archaeological Coordination.

Archaeologically significant sites exist in the project area as follows:

Site	Description	Location
47BR0188	Gildernick	Station 1427+00 – 1431+00 SB, LT
47BR0189	Cavil	Station 1500+00 – 1504+00 NB/SB, LT and RT
47BR0190	Biese	Station 1374+00 – 1378+00 NB, RT
47BR0191	Nelson	Station 1551+00 – 1566+00 NB, RT
47OU0114	Van Asten at Sniderville	Station 1409+00 – 1415+00 SB, LT
47BOU0056	St. Patrick Cemetery	Station 1352+00 – 1357+00 NB, RT

Provide two weeks' notice to the Bureau of Technical Services, Environmental Process and Document Section (EPDS) before doing any ground disturbing activities in the area of these sites. EPDS will provide a qualified archaeologist to be on site at all times when work occurs near these sites. The contact at EPDS is Lynn Cloud, (608) 266-0099.

If a potentially significant archaeological feature or material is discovered during construction operations, the qualified archeologist will promptly coordinate with the engineer and with EPDS to determine an appropriate course of action.
(NER15-0122)

19. Archaeological Site Protection.

Do not use the following sites for borrow, waste disposal, or for the staging of personnel, equipment and/or supplies:

Site	Description	Location
47BR0188	Gildernick	Station 1427+00 – 1431+00 SB, LT
47BR0189	Cavil	Station 1500+00 – 1504+00 NB/SB, LT and RT
47BR0190	Biese	Station 1374+00 – 1378+00 NB, RT
47BR0191	Nelson	Station 1551+00 – 1566+00 NB, RT
47OU0114	Van Asten at Sniderville	Station 1409+00 – 1415+00 SB, LT
47BOU0056	St. Patrick Cemetery	Station 1352+00 – 1357+00 NB, RT

Place safety fence at the right-of-way line from approx. Station 1356+00 – 1356+75 RT and as directed by the engineer adjacent to St. Patrick Cemetery (BOU-056) prior to commencing work according to item 616.0700.S.

20. Notice to Contractor, Verification of Asbestos Inspection, No Asbestos Found.

John Roelke, License Number AII-119523, inspected Structure B-5-0053 and B-5-0080 for asbestos on April 24, 2013. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Tim Rank, 920-360-2579.
107-127 (20120615)

21. Work By Others.

In the area of the existing Wrightstown SWEF, the Wisconsin Department of Transportation Northeast Region Electrical Unit will remove and salvage the existing electronic scale sign at I-41 NB station 1369+85 RT.

The contractor shall contact the NE Region Electrical Unit at (920) 492-5654 three days before work is to take place at this location.

The contractor shall contact the NE Region Electrical Unit at (920) 492-5654 one day in advance when the conduit to the CMS signs is stubbed out on the inside of the I-Beam farthest away from traffic so the NE Region Electrical Unit can complete the conduit connection to the sign.

22. Survey Monument Coordination.

The contractor shall notify the Northeast Regional Survey Coordinator, Cormac McInnis, (920) 492-5638, at least 30 days prior to the beginning of construction activities. The Regional Survey Coordinator will then make the arrangements to have the Public Land Survey Monument and Landmark Reference Monuments tied out.

After the majority of construction is complete (prior to restoration) the contractor shall again notify the Survey Coordinator that the site is ready for the replacement of the monuments. The Survey Coordinator will then make arrangements to have the Public Land Survey Monument and Landmark Reference Monuments reset. (NER14-0429)

23. Removing Small Pipe Culverts, Item 203.0100.

Add the following to standard spec 203.3.1 with the following:

Removal of apron endwalls shall be included in the removal of small pipe culverts item.

24. Removing Old Structure Over Waterway With Minimal Debris Station 1327+51, Item 203.0600.S.01.

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

Add the following to standard spec 203:

203.3.6 Removals Over Waterways and Wetlands

203.3.6.2 Removing Old Structure Over Waterway with Minimal Debris

- (1) Remove the existing Structure B-5-53 over Apple Creek in large sections and conforming to the contractor's approved structure removal and clean-up plan. During superstructure removal, prevent all large pieces and minimize the number of small pieces from entering the waterway or wetland. Remove all reinforcing steel, all concrete, and all other debris that falls into the waterway or wetland only outside of the defined fish spawning dates. The contractor may leave limited amounts of small concrete pieces scattered over the waterway floor or wetland only if the engineer allows.
- (2) Submit a structure removal and clean-up plan as part of the erosion control implementation plan required under standard spec 107.20. Do not start work under the structure removal and clean-up plan without the department's written approval of the plan. Include the following information in the structure removal and clean-up plan:
 - Methods and schedule to remove the structure.
 - Methods to control potentially harmful environmental impacts.
 - Methods for superstructure removal that prevent all large pieces and minimize the number of small pieces from entering the waterway or wetlands.
 - Methods to control dust and contain slurry.

- Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require.
 - Methods for cleaning the waterway or wetlands.
- (3) If stockpiling spoil material, place it on an upland site an adequate distance from the waterway, wetland, or any open water created by excavation. Install silt fence between the spoil pile and the waterway, wetland, or excavation site.

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

ITEM NUMBER	DESCRIPTION	UNIT
203.0600.S.01	Removing Old Structure Over Waterway With Minimal Debris Station 1327+51	LS

25. Removing Culvert Endwalls, Item 204.9060.S.01.

A Description

This special provision describes removing Culvert Pipe Endwall according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Culvert Endwalls in each, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01	Removing Culvert Endwalls	EACH
204-025 (20150630)		

26. QMP Base Aggregate.

A Description

A.1 General

- (1) This special provision describes contractor quality control (QC) sampling and testing for base aggregates, documenting those test results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.
- (2) Conform to standard spec 301, standard spec 305, and standard spec 310 as modified here in this special provision. Apply this special provision to material placed under all

of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.

- (3) Do not apply this special provision to material placed under the Aggregate Detours, Salvaged Asphaltic Pavement Base, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.
- (4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:
 1. Production and placement control and inspection.
 2. Material sampling and testing.
- (5) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's web site at: <http://wisconsindot.gov/Pages/doing-bus/eng-consultants/enslt-rsrcs/rdwy/default.aspx>

A.2 Contractor Testing for Small Quantities

- (1) The department defines a small quantity, for each individual Base Aggregate bid item, as a plan quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.
- (2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:
 1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.
 2. Divide the aggregate into uniformly sized sublots for testing as follows:

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

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

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

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

3. No control charts are required. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.

4. Department verification testing is optional for quantities of 6000 tons or less.
- (3) Material represented by a subplot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B Materials

B.1 Quality Control Plan

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

B.2 Personnel

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

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

- [1] Plant personnel under the direct observation of an aggregate technician certified at level one or higher may operate equipment to obtain samples.
- (2) A certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

B.3 Laboratory

- (1) Perform QC testing at a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:
- Materials Management Section
3502 Kinsman Blvd.
Madison, WI 53704
Telephone: (608) 246-5388
- <http://wisconsinidot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/qual-labs.aspx>

B.4 Quality Control Documentation

B.4.1 General

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

B.4.2 Records

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

B.4.3 Control Charts

- (1) Plot gradation and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 8.30. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.
- (2) Provide control charts to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:
1. Contractor individual QC tests.
 2. Department QV tests.
 3. Department IA tests.
 4. Four-point running average of the QC tests.

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

B.5 Contractor Testing

- (1) Test gradation, fracture, liquid limit and plasticity index during placement for each base aggregate size, source or classification, and type.
- (2) Test gradation once per 3000 tons of material placed. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.
- (3) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.
- (4) The engineer may require additional sampling and testing to evaluate suspect material or the technician's sampling and testing procedures.
- (5) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.
- (6) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

B.6 Test Methods

B.6.1 Gradation

- (1) Test gradation using a washed analysis conforming to the following as modified in CMM 8.60:
Gradation..... AASHTO T 27
Material finer than the No. 200 sieve..... AASHTO T 11
- (2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.

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

B.6.2 Fracture

- (1) Test fracture conforming to CMM 8.60. The engineer will waive fractured particle testing on quarried stone.
- (2) Maintain a separate fracture control chart for each base aggregate size, source or classification, and type. Set the lower control limit at the contract specification limit, either specified in another special provision or in table 301-2 of standard spec 301.2.4.5. Set the lower warning limit 2 percent above the lower control limit. There are no upper limits.

B.6.3 Liquid Limit and Plasticity

- (1) Test the liquid limit and plasticity according to AASHTO T 89 and T 90.
- (2) Ensure the material conforms to the limits specified in standard spec table 301-2.

B.7 Corrective Action

B.7.1 General

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

B.7.2 Placement Corrective Action

- (1) Do not blend additional material on the roadbed to correct gradation problems.
- (2) Notify the engineer whenever the running average exceeds a warning limit. When two consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:
 1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
 2. For fracture, increase the QC testing frequency to at least one test per gradation test.

- (3) If corrective action improves the property in question such that the running average after 4 additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after 4 additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.
- (4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.
- (5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:
 1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
 2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
 3. The fracture control limit is exceeded by more than 10.0 percent.

B.8 Department Testing

B.8.1 General

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

B.8.2 Verification Testing

B.8.2.1 General

- (1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:
 1. One non-random test on the first day of placement.
 2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.
- (3) The department will sample randomly, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting;

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

- (4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.

B.8.3 Independent Assurance

- (1) Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
 1. Split sample testing.
 2. Proficiency sample testing.
 3. Witnessing sampling and testing.
 4. Test equipment calibration checks.
 5. Reviewing required worksheets and control charts.
 6. Requesting that testing personnel perform additional sampling and testing.
- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.9.

B.9 Dispute Resolution

- (1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.
- (2) Production test results, and results from other process control testing, may be considered when resolving a dispute.
- (3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in

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

C (Vacant)

D (Vacant)

E Payment

- (1) Costs for all sampling, testing, and documentation required under this special provision are incidental to this work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the non-performance of QMP administrative item.
- (2) For material represented by a running average exceeding a control limit, the department will reduce pay by 10 percent of the contract price for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

301-010 (20151210)

27. 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.
460-015 (20140630)

28. QMP HMA Pavement Nuclear Density.

A Description

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

- (1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 as modified in this special provision.
- (2) Provide and maintain a quality control program defined as all activities and documentation of the following:
 1. Selection of test sites.
 2. Testing.
 3. Necessary adjustments in the process.
 4. Process control inspection.
- (3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures. Obtain the CMM from the department's web site at:
<http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm>
- (4) The department's Materials Reporting System (MRS) software allows contractors to submit data to the department electronically, estimate pay adjustments, and print selected reports. Qualified personnel may obtain MRS software from the department's web site at:
<http://www.atwoodsystems.com/mrs>

B Materials

B.1 Personnel

- (1) Perform HMA pavement density (QC, QV) testing using a HTCP certified nuclear technician I, or a nuclear assistant certified technician (ACT-NUC) working under a certified technician.
- (2) If an ACT is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

B.2 Testing

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

B.3 Equipment

B.3.1 General

- (1) Furnish nuclear gauges from the department's approved product list at <http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm>.
- (2) Have the gauge calibrated by the manufacturer or an approved calibration service within 12 months of its use on the project. Retain a copy of the manufacturer's calibration certificate with the gauge.
- (3) Prior to each construction season, and following any calibration of the gauge, the contractor must perform calibration verification for each gauge using the reference blocks located in the department's central office materials laboratory. To obtain information or schedule a time to perform calibration verification, contact the department's Radiation Safety Officer at:
Materials Management Section
3502 Kinsman Blvd.
Madison, Wisconsin 53704
Telephone: (608) 243-5998

B.3.2 Correlation of Nuclear Gauges

B.3.2.1 Correlation of QC and QV Nuclear Gauges

- (1) Select a representative section of the compacted pavement prior to or on the first day of paving for the correlation process. The section does not have to be the same mix design.
- (2) Correlate the 2 or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the correlation on 5 test sites jointly located. Record each density measurement of each test site for the QC, QV and back up gauges.

- (3) Calculate the average of the difference in density of the 5 test sites between the QC and QV gauges. Locate an additional 5 test sites if the average difference exceeds 1.0 lb/ft³. Measure and record the density on the 5 additional test sites for each gauge.
- (4) Calculate the average of the difference in density of the 10 test sites between the QC and QV gauges. Replace one or both gauges if the average difference of the 10 tests exceeds 1.0 lb/ft³ and repeat correlation process from B.3.2.1 (2).
- (5) Furnish one of the QC gauges passing the allowable correlation tolerances to perform density testing on the project.

B.3.2.2 Correlation Monitoring

- (1) After performing the gauge correlation specified in B.3.2.1, establish a project reference site approved by the department. Clearly mark a flat surface of concrete or asphalt or other material that will not be disturbed during the duration of the project. Perform correlation monitoring of the QC, QV, and all back-up gauges at the project reference site.
- (2) Conduct an initial 10 density tests with each gauge on the project reference site and calculate the average value for each gauge to establish the gauge's reference value. Use the gauge's reference value as a control to monitor the calibration of the gauge for the duration of the project.
- (3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft³ of its reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft³ of its reference value established in B.3.2.2(2).
- (4) Maintain the reference site test data for each gauge at an agreed location.

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

- (1) A lot consists of the tonnage placed each day for each layer and target density specified in standard spec 460.3.3.1. A lot may include partial sublots.
- (2) Divide the roadway into sublots. A sublot is 1500 lane feet for each layer and target density.
- (3) A sublot may include HMA placed on more than one day of paving. Test sublots at the pre-determined random locations regardless of when the HMA is placed. No additional testing is required for partial sublots at the beginning or end of a day's paving.

- (4) If a resulting partial quantity at the end of the project is less than 750 lane feet, include that partial quantity with the last full subplot of the lane. If a resulting partial quantity at the end of the project is 750 lane feet or more, create a separate subplot for that partial quantity.
- (5) Randomly select test locations for each subplot as specified in CMM 8.15 prior to paving and provide a copy to the engineer. Locate and mark QC density test sites when performing the tests. Perform density tests prior to opening the roadway to traffic.
- (6) Use Table 1 to determine the number of tests required at each station, depending on the width of the lane being tested. When more than one test is required at a station, offset the tests 10 feet longitudinally from one another to form a diagonal testing row across the lane.

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

Table 1

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

- (1) A lot represents a combination of the total daily tonnage for each layer and target density.
- (2) Each side road, crossover, turn lane, ramp, and roundabout must contain at least one subplot for each layer.
- (3) If a side road, crossover, turn lane, or ramp is 1500 feet or longer, determine sublots and random test locations as specified in B.4.1.1.
- (4) If a side road, crossover, turn lane, or ramp is less than 1500 feet long, determine sublots using a maximum of 750 tons per subplot and perform the number of random tests as specified in Table 2.

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

Table 2

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

- (1) Calculate the average subplot densities using the individual test results in each subplot.
- (2) If all subplot averages are no more than one percent below the target density, calculate the daily lot density by averaging the results of each random QC test taken on that day's material.

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

B.4.2.2 Mainline Shoulders

B.4.2.2.1 Width Greater Than 5 Feet

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

B.4.2.2.2 Width of 5 Feet or Less

- (1) If all subplot test results are no more than 3.0 percent below the minimum target density, calculate the daily lot density by averaging all individual test results for the day.
- (2) If a subplot test result is more than 3.0 percent below the target density, the engineer may require the unacceptable material to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine the limits of the unacceptable material according to B.4.3.

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

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

B.4.2.4 Documentation

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

B.4.3 Corrective Action

- (1) Notify the engineer immediately when an individual test is more than 3.0 percent below the specified minimum in standard spec 460.3.3.1. Investigate and determine the cause of the unacceptable test result.
- (2) The engineer may require unacceptable material specified in B.4.3(1) to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine limits of the unacceptable area by measuring density of the layer at 50-foot increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing at 50-foot increments until a point of acceptable density is found as specified in standard spec 460.5.2.2(1). Removal and replacement of material may be required if extended testing is in a previously accepted subplot. Testing in a previously accepted subplot will not be used to recalculate a new lot density.
- (3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full subplot width within the traffic lanes or shoulders.
- (4) Retesting and acceptance of replaced pavement will be according to standard spec 105.3.

- (5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the subplot and lot densities.
- (6) If 2 consecutive subplot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

B.5 Department Testing

B.5.1 Verification Testing

- (1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the sublots and a minimum of one subplot per mix design. The sublots selected will be within the active work zone. The contractor will supply the necessary traffic control for the department's testing activities.
- (2) The QV tester will test each selected subplot using the same testing requirements and frequencies as the QC tester.
- (3) If the verification subplot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.
- (4) If the verification subplot average is more than one percent below the specified target density, compare the QC and QV subplot averages. If the QV subplot average is within 1.0 lb/ft³ of the QC subplot average, use the QC tests for acceptance.
- (5) If the first QV/QC subplot average comparison shows a difference of more than 1.0 lb/ft³ each tester will perform an additional set of tests within that subplot. Combine the additional tests with the original set of tests to compute a new subplot average for each tester. If the new QV and QC subplot averages compare to within 1.0 lb/ft³, use the original QC tests for acceptance.
- (6) If the QV and QC subplot averages differ by more than 1.0 lb/ft³ after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

B.5.2 Independent Assurance Testing

- (1) Independent assurance is unbiased testing the department performs to evaluate the department's verification and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform the independent assurance review according to the department's independent assurance program.

B.6 Dispute Resolution

- (1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge correlation according to B.3.2.1.
- (2) The testers may use correlation monitoring according to B.3.2.2 to determine if one of the gauges is out of tolerance. If a gauge is found to be out of tolerance with its reference value, remove the gauge from the project and use the other gauge's test results for acceptance.
- (3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV subplot density test results or retesting of the subplot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.
- (4) If investigation finds that both gauges are in error, the contractor and engineer will reach a decision on resolution through mutual agreement.

B.7 Acceptance

- (1) The department will not accept QMP HMA Pavement Nuclear Density if a non-correlated gauge is used for contractor QC tests.

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

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

E.2 Disincentive for HMA Pavement Density

- (1) The department will administer density disincentives according to standard spec 460.5.2.2.

E.3 Incentive for HMA Pavement Density

- (1) Delete standard spec 460.5.2.3.
- (2) If the lot density is greater than the minimum specified in standard spec table 460-3 and all individual air voids test results for that mixture are within +1.0 percent or -0.5 percent of the design target in standard spec table 460-2, the department will adjust pay for that lot as follows:

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

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

29. Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S.

A Description

This special provision describes furnishing and placing stainless steel reinforcing bars.

Conform to standard spec 505 as modified in this special provision.

B Materials

B.1 General

Furnish stainless steel reinforcing bars conforming to ASTM A955 and to one of the following Unified Numbering System (UNS) designations: S31653, S31803, S32205, or S32304. Supply grade 60 bars, all of the same UNS designation. Conform to the chemical composition specified for the given UNS designation in ASTM A276 table 1.

Supply bars that are free of dirt, mill scale, oil, and debris by pickling to a bright or uniform light finish. The department may reject bars displaying rust/oxidation, questionable blemishes, or lack of a bright or uniform pickled surface.

Furnish chairs or continuous supports made of stainless steel or recycled plastic to support high-strength stainless bar steel reinforcement subject to the plastic chair restriction stated in standard spec 505.3.4(1).

Furnish couplers made from one of the UNS alloys allowed for bar steel.

Furnish tie wire made from one of the UNS alloys allowed for bar steel or from an engineer-approved plastic or nonmetallic material. Ensure that stainless steel tie wire is dead soft annealed.

B.2 Fabrication

Before fabrication, supply test results from an independent testing agency certifying that the reinforcement meets the requirements of Annex A1 of ASTM A955.

Bend bars conforming to standard spec 505.3.2 and according to ASTM A955. Bend and cut bars using equipment thoroughly cleaned or otherwise modified to prevent contamination from carbon steel or other contaminants. Use tools dedicated solely to working with stainless steel.

B.3 Control of Material

Identify reinforcement bars delivered to the project site with tags bearing the identification symbols used in the plans. Include the UNS designation, heat treat condition, heat number, grade corresponding to minimum yield strength level, and sufficient documentation to track each bar bundle to a mill test report.

Provide samples for department testing and acceptance according to CMM 8-50 Exhibit 1 requirements for concrete masonry reinforcement for uncoated bar steel.

Provide mill test reports for the project that do the following:

1. Verify that sampling and testing procedures and test results conform to ASTM A955, ASTM A276 table 1, and these contract requirements.
2. Include a chemical analysis with the UNS designation, heat lot identification, and the source of the metal.
3. Include tensile strength, yield strength, and elongation tests results conforming to ASTM A955 for each size furnished.
4. Certify that the bars have been pickled to a bright or uniform light finish.

C Construction

C.1 General

Ship, handle, store, and place the stainless steel reinforcing as follows:

1. Separate from regular reinforcement during shipping. Pad points of contact with steel chains or banding, or secure with non-metallic straps.
2. Store on wooden cribbing separated from regular reinforcement. Cover with tarpaulins if stored outside.
3. Handle with non-metallic slings.
4. Do not flame cut or weld. Protect from contamination when cutting, grinding, or welding other steel products above or near the stainless steel during construction.
5. Place on plastic or stainless steel bar chairs. If placing stainless steel chairs on steel beams, use chairs with plastic-coated feet.
6. Tie with stainless steel wire or an engineer-approved plastic or nonmetallic material.

Do not tie stainless steel reinforcing bars to, or allow contact with, uncoated reinforcing bars or galvanized steel. Maintain at least 1-inch clearance between stainless steel bars or dowels and uncoated or galvanized steel. Where 1-inch clearance is not possible, sleeve bars with a continuous polyethylene or nylon tube at least 1/8-inch thick extending at least 1 inch in each direction and bind with nylon or polypropylene cable ties. Sleeves are not required between stainless steel bars and shear studs. Stainless steel bars can be in direct contact with undamaged epoxy-coated bars.

Cut flush with the top flange or remove uncoated fasteners, anchors, lifting loops, or other protrusions into a bridge deck before casting the deck on prestressed concrete beams.

C.2 Splices

Splice as the plans show. Provide stainless steel couplers conforming to the minimum capacity, certification, proof testing, and written approval requirements of standard spec 550.3.3.4. The contractor may substitute stainless steel couplers for lap splices the plans show if the engineer approves in writing.

If increasing or altering the number or type of bar splices the plans show, provide revised plan sheets to the engineer showing the reinforcement layout, type, length, and location of revised bar splices and revised bar lengths. Obtain engineer approval for the location of new lap splices or substitution of mechanical bar couplers before fabrication. Ensure that new lap splices are at least as long as those the plans show.

D Measurement

The department will measure Bar Steel Reinforcement HS Stainless Structures by the pound acceptably completed, computed from the nominal weights of corresponding sizes for carbon steel deformed bars in AASHTO M31 regardless of stainless steel alloy provided. The department will not measure extra material used if the contractor alters the reinforcement layout as allowed under C.2, extra material for splices or couplers the plans do not show, or the weight of devices used to support or fasten the steel in position.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB

Payment for Bar Steel Reinforcement HS Stainless Structures is full compensation for furnishing and placing stainless steel reinforcing bars, including supports. Where the plans specify bar couplers, the department will pay for the length of bars as detailed with no deduction or increase for installation of the coupler.

505-005 (20141107)

30. Polymer Overlay, Item 509.5100.S.

A Description

This special provision describes furnishing and applying two layers of a two-component polymer overlay system to the bridge decks shown on the plans. The minimum total thickness of the overlay system shall be $\frac{1}{4}$ ".

B Materials

B.1 General

Furnish materials specifically designed for use over concrete bridge decks. Furnish polymer liquid binders from the department's approved product list.

B.2 Polymer Resin

The polymer resin base and hardener shall be composed of two-component, 100% solids, 100% reactive, thermosetting compound with the following properties:

Property	Requirements	Test Method
Gel Time ^A	15 - 45 minutes @ 73° to 75° F	ASTM C881
Viscosity ^A	7 - 70 poises	ASTM D2393, Brookfield RVT, Spindle No. 3, 20 rpm
Shore D Hardness ^B	60-75	ASTM D2240
Absorption ^B	1% maximum at 24 hr	ASTM D570
Tensile Elongation ^B	30% - 70% @ 7 days	ASTM D638
Tensile Strength ^B	>2000 psi @ 7 days	ASTM D638
Chloride Permeability ^B	<100 coulombs @ 28 days	AASHTO T277

^A Uncured, mixed polymer binder

^B Cured, mixed polymer binder

B.3 Aggregates

Furnish natural or synthetic aggregates that have a proven record of performance in applications of this type. Furnish aggregates that are non-polishing, clean, free of surface moisture, fractured or angular in shape; free from silt, clay, asphalt, or other organic materials; and meet the following properties and gradation requirements:

Aggregate Properties:

Property	Requirement	Test Method
Moisture Content*	½ of the measured aggregate absorption, %	ASTM C566
Hardness	³ 6.5	Mohs Scale
Fractured Faces	100% with at least 1 fractured face and 80% with at least 2 fractured faces of material retained on No.16	ASTM 5821
Absorption	≤1%	ASTM C128

* Sampled and tested at the time of placement.

Gradation:

Sieve Size	% Passing by Weight
No. 4	100
No. 8	30 – 75
No. 16	0 – 5
No. 30	0 – 1

B.4 Required Properties of Overlay System

The required properties of the overlay system are listed in the table below:

Property	Requirement ^A	Test Method
Minimum Compressive Strength at 8 Hrs. (psi)	1,000 psi @ 8 hrs 5,000 psi @ 24 hrs	ASTM C 579 Method B, Modified ^B
Thermal Compatibility	No Delaminations	ASTM C 884
Minimum Pull-off Strength	250 psi @ 24 hrs	ACI 503R, Appendix A

^A Based on samples cured or aged and tested at 75°F

^B Plastic inserts that will provide 2-inch by 2-inch cubes shall be placed in the oversized brass molds.

B.5 Approval of Bridge Deck Polymer Overlay System

A minimum of 20 working days prior to application, submit product data sheets and specifications from the manufacturer, and a certified test report to the engineer for approval. The engineer may request samples of the polymer and/or aggregate, prior to application, for the purpose of acceptance testing by the department.

For materials not pre-qualified, in addition to the above submittals, submit product history/reference projects and a certified test report from an independent testing laboratory showing compliance with the requirements of the specification.

The product history/reference projects consist of a minimum of five bridge/roadway locations where the proposed overlay system has been applied in Wisconsin or in locations with a similar climate - include contact names for the facility owner, current phone number or e-mail address, and a brief description of the project.

Product data sheets and specifications from the manufacture consists of literature from the manufacturer showing general instructions, application recommendations/methods, product properties, general instructions, or any other applicable information.

C Construction

C.1 General

Conduct a pre-installation conference with the manufacturer's representative prior to construction to establish procedures for maintaining optimum working conditions and coordination of work. Furnish the engineer a copy of the recommended procedures and apply the overlay system according to the manufacturer's instructions. The manufacturer's representative familiar with the overlay system installation procedures shall be present at all times during surface preparation and overlay placement to provide quality assurance that the work is being performed properly.

Store resin materials in their original containers in a dry area. Store and handle materials according to the manufacturer's recommendations. Store all aggregates in a dry environment and protect aggregates from contaminants on the job site.

C.2 Deck Preparation

C.2.1. Deck Repair

Remove all asphaltic patches and unsound or disintegrated areas of the concrete decks as the plans show, or as the engineer directs. Work performed to repair the concrete deck will be paid for under other items. Ensure that products used for deck patching are compatible with the polymer overlay system.

NOTE: Some polymer systems require concrete patch material to be in place a minimum of 28-days before overlaying - contact polymer manufacturer before completing deck patching/repair.

C.2.2 Surface Preparation

Determine an acceptable shotblasting machine operation (size of shot, flow of shot, forward speed, and/or number of passes) that provides a surface profile meeting CSP 5 according to the International Concrete Repair Institute Technical Guideline No. 03732. If the engineer requires additional verification of the surface preparation, test the tensile bond strength according to ACI 503R, Appendix A of the *ACI Manual of Concrete Practice*. The surface preparation will be considered acceptable if the tensile bond strength is greater than or equal to 250 psi or the failure area at a depth of ¼ inches or more is greater than 50% of the test area. Continue adjustment of the shotblasting machine and necessary testing until the surface is acceptable to the engineer or a passing test result is obtained.

Prepare the entire deck using the final accepted adjustments to the shotblasting machine as determined above. Thoroughly blast clean with hand-held equipment any areas inaccessible by the shotblasting equipment. Do not perform surface preparation more than 24 hours prior to the application of the overlay system.

Prepare the vertical concrete surfaces adjacent to the deck a minimum of 2" above the overlay according to SSPC-SP 13 by sand blasting, using wire wheels, or other approved method.

Just prior to overlay placement, clean all dust, debris, and concrete fines from the prepared surfaces including the vertical surfaces with compressed air. When using compressed air, the air stream must be free of oil. Any grease, oil, or other foreign matter that rests on or has absorbed into the concrete shall be removed completely. If any prepared surfaces (including the first layer of the polymer overlay) are exposed to rain or dew, lightly sandblast (breeze blast) the exposed surfaces.

Protect drains, expansion joints, access hatches, or other appurtenances on the deck from damage by the shot and sand blasting operations and from materials adhering and entering. Tape or form all construction joints to provide a clean straight edge.

Create a transitional area approaching transverse expansion joints and ends of the deck using the shotblasting machine or other approved method. Remove 5/16" to 3/8" of concrete adjacent to the joint or end of deck and taper a distance of 3 feet.

The engineer may consider alternate surface preparation methods per the overlay system manufacturer's recommendations. The engineer will approve the final surface profile and deck cleanliness prior to the contractor placing the polymer overlay.

C.3 Application of the Overlay

Perform the handling and mixing of the polymer resin and hardening agent in a safe manner to achieve the desired results according to the manufacturer's instructions. Do not apply the overlay system if any of the following exists:

- a. Ambient air temperature is below 50°F.
- b. Deck temperature is below 50°F.
- c. Moisture content in the deck exceeds 4.5% when measured by an electronic moisture meter or shows visible moisture after 2 hours when measured according to ASTM D4263.
- d. Rain is forecasted during the minimum curing periods listed under C.5.
- e. Materials component temperatures below 50°F or above 99°F.
- f. Concrete age is less than 28 days unless approved by the engineer.
- g. The deck temperature exceeds 100°F.
- h. If the gel time is 10 minutes or less at the predicted high air temperature for the day.

After the deck has been shotblasted or during the overlay curing period, only necessary surface preparation and overlay application equipment will be allowed on the deck. Begin overlay placement as soon as possible after surface preparation operations.

The polymer overlay shall consist of a two-course application of polymer and aggregate. Each of the two courses shall consist of a layer of polymer covered with a layer of aggregate in sufficient quantity to completely cover the polymer. Apply the polymer and aggregate according to the manufacturer's requirements. Apply the overlay using equipment designed for this purpose. The application machine shall feature positive displacement volumetric metering and be capable of storing and mixing the polymer resins at the proper mix ratio. Disperse the aggregate using a standard chip spreader or equivalent machine that can provide a uniform, consistent coverage of aggregate. First course applications that do not receive enough aggregate before the polymer gels shall be removed and replaced. A second course applied with insufficient aggregate may be left in place, but will require additional applications before opening to traffic.

After completion of each course, cure the overlay according to the manufacturer's instructions. Follow the minimum cure times listed under C.5 or as prescribed by the manufacturer. Remove the excess aggregate from the surface treatment by sweeping, blowing, or vacuuming without tearing or damaging the surface; the material may be re-used if approved by the engineer and manufacturer. Apply all courses of the overlay system before opening the area to traffic. Do not allow traffic on the treated area until directed by the engineer.

After the first layer of coating has cured to the point where the aggregate cannot be pulled out, apply the second layer. Prior to applying the second layer, broom and blow off the first layer with compressed air to remove all loose excess aggregate.

Prior to opening to traffic, clean expansion joints and joint seals of all debris and polymer. If required by the engineer, a minimum of three days following opening to traffic, remove loosened aggregates from the deck, expansion joints, and approach pavement.

C.4 Application Rates

Apply the polymer overlay in two separate courses according to the manufacturer's instructions, but not less than the following rate of application.

Course	Minimum Polymer Rate ^A (GAL/100 SF)	Aggregate ^B (LBS/SY)
1	2.5	10+
2	5.0	14+

^A The minimum total applications rate is 7.5 GAL/100 SF.

^B Application of aggregate shall be of sufficient quantity to completely cover the polymer.

C.5 Minimum Curing Periods

As a minimum, cure the coating as follows:

	Average temperature of deck, polymer and aggregate components in °F							
Course	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-99
1	6 hrs.	5 hrs.	4 hrs.	3 hrs.	2.5 hrs	2 hrs	1.5 hrs.	1 hr.
2	8 hrs.	6.5 hrs.	6.5 hrs.	5 hrs.	4 hrs.	3 hrs.	3 hrs.	3 hrs.

C.6 Repair of Polymer Overlay

Repair all areas of unbonded, uncured, or damaged polymer overlay for no additional compensation. Submit repair procedures from the manufacturer to the engineer for approval. Absent a manufacturer's repair procedures and with the approval of the engineer, complete repairs according to the following: Saw cut the limits of the area to the top of the concrete; remove the overlay by scarifying, grinding, or other approved methods; shot blast or sand blast and air blast the concrete prior to placement of polymer overlay; and place the polymer overlay according to section C.3.

D Measurement

The department will measure Polymer Overlay in area by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.5100.S	Polymer Overlay	SY

Payment is full compensation for preparing the surface; for tensile bond testing; for providing the overlay; for cleanup; and for sweeping/vacuuming and disposing of excess materials. Concrete Deck Repair will be paid for separately.

509-030 (20150630)

31. Removing Asphaltic Concrete Deck Overlay B-05-80, Item 509.9010.S.01.

A Description

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

B (Vacant)

C Construction

C.1 Milling

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

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

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

- Is free of sharp protrusions;
- Has uniform transverse grooves that measure up to 1/4-inch vertically and transversely; and
- If applicable, is acceptable to the manufacturer of the sheet waterproof membrane.

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

C.2 Cleaning

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

Clean the surface on which the new overlay will be placed to remove all loose particles and dust by either brooming and water pressure using a high-pressure nozzle, or by water and

air pressure. Use water for cleaning that conforms to specifications for water under standard spec 501.2.4.

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.9010.S.01	Removing Asphaltic Concrete Deck Overlay B-05-80	SY

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

509-010 (20110615)

32. Structure Repainting General.

A General

A.1 Inspection

On all structures in this contract, notify the engineer of any missing or broken bolts or nuts, any missing or broken rivets, or of any cracks or flaws in the steel members while cleaning or painting.

A.2 Date Painted

At the completion of all painting work, stencil in black paint or contrasting color paint the date of painting the bridge. The numbers shall be three inches (75 mm) in height and shall show the month and year in which the painting was completed: e.g., 11-95 (November 1995). On each bridge painted, stencil the date at two locations. On truss bridges, stencil the date on the cover plates of end posts near and above the top of the railings at the oncoming traffic end. On steel girder bridges, stencil the date on the **inside** of the outside stringers at the abutments. The date on grade separation bridges shall be readable when going under the structure or at some equally visible surface near the ends of the bridge, as designated by the engineer.

A.3 Graffiti Removal

Remove any graffiti on concrete abutments, piers, pier caps, parapet railings, slope paving or any other location at the direction of the engineer. Use a brush sandblast to remove graffiti.

The above work will not be measured and paid for separately, but will be considered incidental to other items in the contract.

B (Vacant)

C Construction

C.1 Repainting Methods

Do not perform blasting, cleaning and painting on days of high winds. Prevailing winds in excess of 15 mph (25 km/hr) shall be considered high winds.

Place the final field coat of paint on the exterior of the exterior beams as a continuous painting operation. Stop at splices, vertical stiffeners or other appropriate locations so that lap marks are not evident or noticeable.

Completely clean and remove spent abrasive and other waste materials resulting from the contractor's operation from bridge deck surfaces, gutter lines, drains, curbs, bridge seats, pier caps, slope paving, roadway below, and all structural members and assemblies.

C.2 Inspection

Add the following to standard spec 105.9:

Furnish, erect and move scaffolding and other appropriate equipment to permit the inspector the opportunity to closely observe all affected surfaces. The scaffolding, with appropriate safety devices, shall meet the approval of the engineer.

517-005 (20150630)

33. Labeling and Disposal of Waste Material.

The EPA ID number for Structures B-05-0053 and B-05-0080 is WIR000157941.

Presently, the state has an exclusive mandatory use contract with a private waste management contractor to transport and dispose of hazardous waste.

The state's waste management contractor shall furnish and deliver appropriate hazardous waste containers and site-specific labels to each bridge site. The provided containers shall be placed at pre-selected drop-off and pick-up points at each bridge site, and these locations shall be determined at the preconstruction conference. The custody of the containers and labels shall be the responsibility of the painting contractor while they are at the job site.

Report all reportable spills and discharges according to the contingency plan.

Labels are site-specific. Check the labels to ensure that the project ID, structure number, and EPA ID match the structure generating the waste. Apply a label to each drum when it is opened for the first time. Fill in the date on the label the first day material is accumulated in the drum. The following page is an example of a properly filled-in label.

During paint removal operations, continuously monitor and notify the project inspector of the status of waste generation and quantity stored so that timely disposal can be arranged.

517-055 (20100709)

34. Preparation and Coating of Top Flanges B-05-53, Item 517.0900.S.01.

A Description

This special provision describes thoroughly cleaning and coating the top surface and edges of the top flanges, removing loose paint, rust, mill scale, dirt, oil, grease, or other foreign substances until the specified finish is obtained.

B (Vacant)

C Construction

For top flanges and edges that have no paint on them and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, clean the top surface and edges of the top flanges and paint them with one coat of an approved zinc rich primer. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.

For top flanges and edges that have paint on them and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, clean all areas of rust and loose paint on the top surface and edges of the top flanges. Wash the top surface and edges of the top flanges and paint them with one coat of an approved zinc-rich primer according to paint manufacture's recommendations. If flash rusting occurs prior to the application of the primer, stop painting application, remove the flash rusting and paint cleaned surface. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.

Where plans call for the cleaning of other painted structural steel including hanger assemblies, bearings, field splices, and connections, clean areas of loose paint and rust according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, or and according to paint manufacture's cleaning recommendations. Sound paint need not be removed with the exception of an area 12-inch on either side of hanger assembly centerlines. Clean this area to base metal according to the paint manufacture's cleaning recommendations and paint them one coat of an approved zinc-rich primer according to paint manufacture's recommendations. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.

For areas of exposed steel members that are to be imbedded in new concrete and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, thoroughly clean the surface area of exposed steel members that are to be imbedded in the new concrete and solvent wash and paint one coat of an approved zinc rich primer according to paint manufacture's recommendations to these areas. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.

According to the approved project specific hazardous material containment plan, furnish and erect tarpaulins or other materials to collect all of the spent paint containing material resulting from blasting or hand and power tool cleaning and coating. Minimize dust during all clean-up activities. Collect and store waste material at the end of each work day or more often if needed. Store waste materials in the hazardous waste containers provided. Lock and

secure all waste containers at the end of each work day. Cover the container(s) at all times except when adding or removing waste material. Store the containers in an accessible and secured area, not located in a storm water runoff course, flood plain or exposed to standing water. Transportation and disposal of such waste material will be the responsibility of the department.

Damage to existing painted surfaces as a result of construction operations, shall be restored to the approval of the engineer at the contractor's expense.

D Measurement

The department will measure Preparation and Coating of Top Flanges (Structure) as a single complete lump sum unit of work for the structure, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.0900.S.01	Preparation and Coating of Top Flanges B-05-53	LS

Payment is full compensation for preparing and cleaning the designated surfaces; and for furnishing and applying the coating.

517-010 (20140630)

35. Structure Repainting Recycled Abrasive B-05-53, Item 517.1800.S.01; B-05-80, Item 517.1800.S.02.

A Description

This special provision describes surface preparation and painting of the metal surfaces according to the manufacturer's recommendations and as hereinafter provided.

A.1 Areas to be Cleaned and Painted

All structural metal surfaces of:

1. Structure B-05-0053 1720 SF.
2. Structure B-05-0080 1678 SF.

Areas are approximate and given for informational purposes only.

B Materials

B.1 Coating System

Furnish a complete coating system from the department's approved list for "Structure Repainting Recycle Abrasive Structure". The color for the finish coating material shall match the color number shown on the plans according to Federal Standard Number 595B, as printed in 1989. Supply the engineer with the product data sheets for approval before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, and the minimum drying time between coats.

The color of the primer must be such that a definite contrast between it and the color of the blasted steel is readily apparent. There shall be a color contrast between all subsequent coats for the paint system selected. Submit color samples of the primer and all coats to the engineer for approval prior to any application of paint.

C Construction

C.1 Surface Preparation

Prior to blast cleaning, solvent clean all surfaces to be coated according to SSPC-SP1.

All metal surfaces must be blast cleaned according to SSPC-SP10 and verified prior to painting.

Upon completion of surface preparation, test representative surfaces, which were previously rusted (i.e. pitted steel) for the presence of residual chloride. Perform Surface Contamination Tests (SCAT) according to the manufacturer's recommendations. The tests must be witnessed by the engineer. If chlorides are detected at levels greater than $7\mu\text{g}/\text{cm}^2$, continue to clean the affected areas until results are below the specified limit. Submit anticipated testing frequencies and chloride remediation methods to the engineer for review and approval.

Apply the prime coat the same day that the metal surfaces receive the No. 10 blast or re-blast before application. Cleaned surfaces shall be of the specified condition immediately prior to paint application. If rust bloom occurs prior to applying the primer, stop the painting operation in the area of the rust bloom and re-blast and clean the area to SSPC SP-10 prior to applying the primer.

The steel grit and any associated equipment brought to the site and used for blast cleaning shall be clean. Remove immediately dirty grit or equipment brought to the site at no expense to the department. Furnish an abrasive that has a gradation such that it will produce a uniform surface profile between 1 to 3 mils on the steel surface, as measured according to ISO 8503-5.

The abrasive blasting and recovery system shall be a completely integrated self-contained system for abrasive blasting and recovery. It shall be an open blast and recovery system that will allow no emissions from the recovery operation. The recovery equipment shall be such that the amount of contaminants in the clean recycled steel grit shall be less than 1 percent by weight as per SSPC AB-2.

Remove by grinding all fins, tears, slivers, and burred or sharp edges that are present on any steel member, or that appear during the blasting operation, and re-blast the area to give a 1 to 3 mils surface profile.

Remove all spent material and paint residue from steel surfaces with a good commercial grade vacuum cleaner equipped with a brush-type cleaning tool, and test cleanliness

according to ASTM D4285. The airline used for surface preparation shall have an in-line water trap and the air shall be free of oil and water as it leaves the airline.

Take care to protect freshly coated surfaces from subsequent blast cleaning operations. Thoroughly wire brush damaged primed surfaces with a non-rusting tool, or if visible rust occurs, re-blast to a near white condition. Clean and re-prime the brushed or blast cleaned surfaces according to this specification.

C.2 Coating Application

Apply paint according to the manufacturer's recommendations in a neat workmanlike manner. Paint application shall normally be by airless spray or inaccessible areas by brush, roller or other methods approved by the engineer.

The engineer may allow the use of conventional spray equipment after satisfactory demonstration by the contractor of the proper application technique and handling of that equipment.

Mix the paint or coatings according to the manufacturer's directions to a smooth lump-free consistency. Keep paint thoroughly mixed during the painting application.

After the inspector approves the entire cleaned surface to be coated, apply a prime coat uniformly to the entire surface. Either before or after applying the prime coat, brush or spray a stripe coat of primer on all plate edges, bolt heads, nuts, and washers. Apply succeeding coats as the product data sheet shows.

Remove all dry spray by vacuuming, wiping, or sanding if necessary.

If the application of the coating at the required thickness in one coat produces runs, bubbles, or sags; apply a "mist-coating" in multiple passes of the spray gun; separate the passes by several minutes. Where excessive coating thickness produces "mud-cracking", remove such coating back to soundly bonded coating and re-coat the area to the required thickness.

The resultant paint film shall be smooth and uniform, without skips or areas of excessive paint according to SSPC PA1.

The coating is supplied for normal use without thinning. If in cool weather it is necessary to thin the coating for proper application, thin according to the manufacturer's recommendations.

During surface preparation and coating application the ambient and steel temperature shall be between 39 degrees F and 100 degrees F. The steel temperature shall be at least 5 degrees F above the dew point temperature. (This requires the steel to be dry and free of any condensation or ice regardless of the actual temperature of the steel.) The relative humidity shall not exceed 85%. The manufacturer's ambient condition requirements must be followed if they are more stringent.

Paint thickness shall be within the requirements for a three coat paint system listed in the department's approved list for Structure Repainting Recycle Abrasive Structure and the paint system being used.

Time to recoat shall be according to the manufacturer's recommendations.

The dry film thickness will be determined by use of a magnetic film thickness gage. The gage shall be calibrated for dry film thickness measurement according to SSPC-PA 2. Dry film thickness in each area measured will be based on an average of three gage readings, after calibration of the gage to account for surface profile of the bare steel as a result of surface preparation.

D Measurement

The department will measure Structure Repainting Recycled Abrasive (Structure) as a single complete lump sum unit of work, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1800.S.01	Structure Repainting Recycled Abrasive B-05-53	LS
517.1800.S.02	Structure Repainting Recycled Abrasive B-05-80	LS

Payment is full compensation for preparing and cleaning the designated surfaces; furnishing and applying the paint; and for providing the listed equipment.
517-050 (20150630)

36. Negative Pressure Containment and Collection of Waste Materials, B-05-53, Item 517.4500.S.01; B-05-80, Item 517.4500.S.02.

A Description

This special provision describes providing a dust collector to maintain a negative air pressure in the enclosure; furnishing and erecting enclosures as required to contain, collect and store waste material resulting from the preparation of steel surfaces for painting, and repainting, including collection of such waste material, and the labeling and storage of waste material in approved hazardous waste containers, all as hereinafter provided.

B (Vacant)

C Construction

Erect an enclosure to completely enclose (surround) the blasting operations. The ground, slope paving, or roadway cannot be used as the bottom of the enclosure unless covered by approved containment materials. So that there are no visible emissions to the air or ground or water, design, erect, operate, maintain and disassemble the enclosures in such a manner to effectively contain and collect dust and waste materials resulting from surface preparation and paint over spray. Suspend all enclosures over water from the structure or as approved by the engineer.

Construct the enclosure of flexible materials such as tarpaulins or of rigid materials such as plywood, or of a combination of flexible and rigid materials and meet SSPC Guide 6 requirements with Level 1 emissions. Systems manufactured and provided by Eagle Industries, Detroit Tarps, or equal, are preferred. The tarpaulins shall be a non-permeable material, either as part of the tarp system or have a separate non-permeable lining. Maintain all materials free of tears, cuts or holes. The vertical sides of the enclosure shall extend from the bottom of the deck down to the level of the covered work platform or covered barge where used for structures over water, and shall be fastened securely to those levels to prevent the wind from lifting them. Bulkheads are required between beams to enclose the blasting area as approved by the engineer. Where bulkheads are required, construct them of plywood and properly seal them. To prevent spent materials and paint over spray from escaping the enclosed area, overlap and fasten together all seams. Place groundcovers under all equipment prior to operations or as approved by the engineer.

To allow proper cleaning, inspection of structures or equipment, and painting, provide safe adequate artificial lighting in areas where natural light is inadequate.

Provide a dust collector so that there are no visible emissions outside of the enclosure and so that a negative air pressure inside the enclosure is maintained. The dust collector shall be sized to maintain the minimum air flow based on the cross-sectional area of the enclosure.

A combination of positive air input and negative air pressure may be needed to maintain the minimum airflow within the enclosure.

Filter all air exhausted from the enclosure to create a negative pressure within the enclosure so as to remove all hazardous and other particulate matter.

After all debris has been removed and all painting has been approved in the containment area is complete, remove containment according to SSPC Guide 6.

As a safety factor for structures over water, provide for scum control. Provide a plan for corrective measures to mitigate scum forming and list the procedures, labor and equipment needed to assure compliance. Effectively contain the scum that forms on the water and does not sink in place from moving upstream or downstream by the use of floating boom devices.

If in the use of floating boom devices the scum tends to collect at the devices, contain, collect, store the scum, and do not allow it to travel upstream or downstream beyond the devices. Remove the scum at least once a day or more often if needed.

Collect and store at the bridge site for disposal all waste material or scum collected by this operation, or any that may have fallen onto the ground tarps. Collect and store all waste material and scum at the end of each workday or more often if needed. Storage shall be in provided hazardous waste containers. Label each container as it is filled, using the labels provided by the Hazardous Waste Disposal contractor. Check the label and ensure that the project ID, bridge number and EPA ID match the structure. Fill in the generation date when

the first material is placed in the container. Secure all containers at the end of each workday. Keep the containers covered at all times except to add or remove waste material. Store the containers in an accessible and secured area, not located in a storm water runoff course, flood plain, or exposed to standing water.

In a separate operation, recover the recyclable abrasive for future application, and collect the paint and/or corrosion particles for disposal.

D Measurement

The department will measure Negative Pressure Containment and Collection of Waste Materials (Structure) as a single complete lump sum unit of work for each structure designated in the contract, completed according to the contract and accepted,.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.4500.S.01	Negative Pressure Containment and Collection of Waste Materials B-05-53	LS
517.4500.S.02	Negative Pressure Containment and Collection of Waste Materials B-05-80	LS

Payment is full compensation for designing, erecting, operating, maintaining, and disassembling the containment devices; providing negative pressure exhaust ventilation; collecting, labeling, and for storing spent materials in provided hazardous waste containers. 517-065 (20140630)

37. Portable Decontamination Facility, Item 517.6001.S.

A Description

This special provision describes furnishing and maintaining weekly, or more often if needed, a single unit portable decontamination facility as hereinafter provided.

B Materials

Supply and operate all equipment according to OSHA.

Supply adequate heating equipment with the necessary fuel to maintain a minimum temperature of 68° F in the facility.

The portable decontamination facility shall consist of a separate "Dirty Room", "Shower Room" and "Clean Room". The facility shall be constructed so as to permit use by either sex. The facility shall have adequate ventilation.

The "Dirty Room" shall have appropriately marked containers for disposable garments, clothing that requires laundering, worker shoes, and any other related equipment. Each container shall be lined with poly bags for transporting clothing, or for disposal. Benches shall be provided for personnel.

The "Shower Room" shall include self-contained individual showering stalls that are stable and well secured to the facility. Provide showers with a continuous supply of potable hot and cold water. The wastewater must be retained for filtration, treatment, and/or for proper disposal.

The "Clean Room" shall be equipped with secure storage facilities for street clothes and separate storage facilities for protective clothing. The lockers shall be sized to store clothing, valuables and other personal belongings for each worker. Benches shall be provided for personnel.

Supply a separate hand wash facility, either attached to the decontamination facility or outside the containment.

C Construction

Properly contain, store, and dispose of the wastewater.

D Measurement

The department will measure Portable Decontamination Facility by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.6001.S	Portable Decontamination Facility	Each

Payment is full compensation for furnishing and maintaining a portable decontamination facility.

517-060 (20140630)

38. Culvert Pipe Liners, 30 -Inch, Item 520.9700.S.01; Culvert Pipe Liners, 36-Inch, Item 520.9700.S.02; 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 $\pm 5\%$ 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 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.01	Culvert Pipe Liners 30-Inch	LF
520.9700.S.02	Culvert Pipe Liners 36-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.

520-015 (20140630)

39. Cable Barrier Type 1, Item 613.1100.S; Cable Barrier End Terminal Type 1, Item 613.1200.S.

A Description

This special provision describes providing socketed high-tension TL-4 cable guard meeting the National Cooperative Highway Research Program (NCHRP) Report 350, Test Level 4.

B Materials

Provide Nucor/Marion TL-4 Cable Guard Systems manufactured by Nucor Steel Marion, Inc. that is on the approved product list for the cable barrier system.

Provide a calibrated tension gauge to the department.

Provide video training material on the proper maintenance techniques and recovery of vehicles entrapped in cables. At a minimum, this training is to address, proper tension techniques, proper operation of calibrated tension gauge, proper repair techniques, and proper methods to removed vehicles entrapped in the cable barrier.

B.2 Design Requirements

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

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

C Construction

Construct concrete as specified in standard spec 501.

Construct steel reinforcement as specified in standard spec 505.

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

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

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

Certify that the installation was done according to manufacturer's recommendations and the plan requirements.

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

D Measurement

The department will measure Cable Barrier Type 1 by the linear foot, acceptably completed, measured as the length from end of terminal to end of terminal and rounded to the nearest linear foot.

The department will measure Cable Barrier End Terminal Type 1 as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
613.1100.S	Cable Barrier Type 1	LF
613.1200.S	Cable Barrier End Terminal Type 1	Each

Payment is full compensation for designing and providing cable barrier end terminal and cable barrier.

613-010 (20150630)

40. Midwest Guardrail System (MGS).

Add the following to standard spec 614.2.1 with the following:

The Midwest Guardrail System installed along I-41 shall be attached to steel posts and notched plastic blockouts.

(NER11-0223)

41. Salvaged Rail, Item 614.0920; Salvaged Guardrail End Treatments, Item 614.0925.

Remove guardrail and guardrail end treatments according to the pertinent requirements of standard spec 614 and as hereinafter provided.

Carefully remove, disassemble at all joints, and stockpile at a location on the right-of-way, outside the construction limits, all salvageable posts, guardrail, guardrail end treatments, and hardware for pickup by the county forces in which the respective salvaged guardrail components were located. Cutting of rail panels is not permitted.

Give two days advanced notice to the county before starting the beam guard removal work to coordinate pickup arrangements. For Brown County contact Jon Giese at (920) 609-4577. For Outagamie County contact Randy Roloff at (920) 209-9808.

Remove and properly dispose of all other material from the right-of-way. Remove and dispose of all material rejected by the county.

42. Fence Safety, Item 616.0700.S.

A Description

This special provision describes furnishing and installing a plastic fence at locations shown on the plans and as hereinafter provided.

B Materials

Furnish notched conventional metal “T” or “U” shaped fence posts.

Furnish fence fabric meeting the following requirements.

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1 inch min to 3 inch max
Resin/Construction:	High density polyethylene mesh
Tensile Yield:	Avg. 2000 lb per 4 ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4 ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

C Construction

Drive posts into the ground 12 to 18 inches. Space posts at 7 feet.

Use a minimum of three wire ties to secure the fence at each post. Weave tension wire through the top row of strands to provide a top stringer that prevents sagging.

Overlap two rolls at a post and secure with wire ties.

D Measurement

The department will measure Fence Safety by the linear foot along the base of the fence, center-to-center of posts, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

Payment is full compensation for furnishing and installing fence and posts; maintaining the fence and posts in satisfactory condition; and for removing and disposing of fence and posts at project completion.

616-030 (20160607)

43. Blue Specific Service Signs.

Add the following to standard spec 638.3.4:

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

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

44. Nighttime Work Lighting-Stationary.**A Description**

Provide portable lighting as necessary to complete nighttime work. Nighttime operations consist of work specifically scheduled to occur after sunset and before sunrise.

B (Vacant)**C Construction****C.1 General**

This provision shall apply when providing, maintaining, moving, and removing portable light towers and equipment-mounted lighting fixtures for nighttime stationary work operations, for the duration of nighttime work on the contract.

At least 14 days prior to the nighttime work, furnish a lighting plan to the engineer for review and acceptance. Address the following in the plan:

1. Layout, including location of portable lighting – lateral placement, height, and spacing. Clearly show on the layout the location of all lights necessary for every aspect of work to be done at night.
2. Specifications, brochures, and technical data of all lighting equipment to be used.
3. The details on how the luminaires will be attached.
4. Electrical power source information.
5. Details on the louvers, shields, or methods to be employed to reduce glare.
6. Lighting calculations. Provide illumination with average to minimum uniformity ratio of 5:1 or less throughout the work area.
7. Detail information on any other auxiliary equipment.

C.2 Portable Lighting

Provide portable lighting that is sturdy and free standing and does not require any guy wires, braces, or any other attachments. Furnish portable lighting capable of being moved as necessary to keep up with the construction project. Position the portable lighting and trailers to minimize the risk of being impacted by traffic on the roadway or by construction traffic or equipment. Provide lightning protection for the portable lighting. Portable lighting shall withstand up to 60 mph wind velocity.

If portable generators are used as a power source, furnish adequate power to operate all required lighting equipment without any interruption during the nighttime work. Provide wiring that is weatherproof and installed according to local, state, federal (NECA and OSHA) requirements. Equip all power sources with a ground-fault circuit interrupter to prevent electrical shock.

C.3 Light Level and Uniformity

Position (spacing and mounting height) the luminaires to provide illumination with an average to minimum uniformity ratio of 5:1 or less throughout the work area.

Illuminate the area as necessary to incorporate construction vehicles, equipment, and personnel activities.

C.4 Glare Control

Design, install, and operate all lighting supplied under these specifications to minimize or avoid glare that interferes with all traffic on the roadway or that causes annoyance or discomfort for properties adjoining the roadway. Locate, aim, and adjust the luminaires to provide the adequate level of illumination and the specified uniformity in the work area without the creation of objectionable glare.

Provide louvers, shields, or visors, as needed, to reduce any objectionable levels of glare. As a minimum, ensure the following requirements are met to avoid objectionable glare on the roadways open to traffic in either direction or for adjoining properties:

1. Aim tower-mounted luminaires, either parallel or perpendicular to the roadway, so as to minimize light aimed toward approaching traffic.
2. Aim all luminaires such that the center of beam axis is no greater than 60 degrees above vertical (straight down).

If lighting does not meet above-mentioned criteria, adjust the lighting within 24 hours.

C.5 Continuous Operation

Provide and have available sufficient fuel, spare lamps, generators, and qualified personnel to ensure that the lights will operate continuously during nighttime operation. In the event of any failure of the lighting system, discontinue the operation until the adequate level of illumination is restored. Move and remove lighting as necessary.

D (Vacant)

E Payment

Costs for furnishing a lighting plan, and for providing, maintaining, moving, and removing portable lighting, tower mounted lighting, and equipment-mounted lighting required under this special provision are incidental to the contract.

643-010 (20100709)

45. Traffic Control.

Perform this work according to the requirements of standard spec 643, and as shown on the plans or as approved by the engineer, except as hereinafter modified.

Submit to engineer for approval a detailed traffic control plan for any changes to the proposed traffic control detail as shown on the plans. Submit this plan ten days prior to the preconstruction conference.

Provide 24 hours-a-day availability of equipment and forces to expeditiously restore lights, signs, or other traffic control devices that are damaged or disturbed. The cost to maintain and restore the above items shall be considered incidental to the item as bid and no additional payment will be made therefore.

Supply the name and telephone number of a local contact person for traffic control repair before starting work.

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

The turning of traffic control devices when not in use to obscure the message will not be allowed under this contract.

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

Cover existing signs which conflict with traffic control as directed by the engineer.

Conduct operations in such a manner that causes the least interference and inconvenience to the free flow of vehicles on the roadways. This includes the following:

- a. Do not park or store any vehicle, piece of equipment, or construction materials on the right-of-way without approval of the engineer.
- b. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic.
- c. Equip all vehicles and equipment entering or leaving the live traffic lanes with a hazard identification beam (flashing yellow signal) capable of being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1000 feet. Activate the beam when merging into or exiting a live traffic lane.

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. Immediately repair or replace any damage done to the above during the construction operations at contractor expense.

The traffic requirements are subject to change at the direction of the engineer in the event of an emergency.
(NER09-1119)

Lane closures for this project are to be restricted to a maximum length of 4 miles for northbound and southbound I-41 respectively (8 miles total).

No hauling, deliveries, or removals to/from the median or outside shoulders of I-41, for work pertaining to this project will be permitted without a full lane closure or engineer approval.

B-5-53/B-5-80 (Apple Creek) deck pours and concrete overlays shall be conducted during night time restricted hours.

During the period when lane closures are allowed on I-41, access into the work zones from I-41 can be made from the closed lane, subject to the approval of the engineer. Construction traffic from the work zone entering I-41 must run out of the closed lane. Once construction traffic is within a lane closure, all construction traffic re-entering I-41 must come to within 10 mph of posted speed before re-entering the live I-41 lane.

Clear Zone Working Restrictions

Do not store materials or equipment within the clear zone of traffic lanes which are not protected by temporary precast barrier. Remove materials from the clear zone prior to opening lane closures. Do not leave any slopes steeper than 3:1 or any drop offs at the edge of the traveled way greater than 2 inches within the clear zone which are not protected by temporary precast barrier prior to opening lane closures.

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

Do not perform heavy equipment work within 18 feet of the edge of the traveled way unless protected by concrete barrier or a lane closure during the allowed closure periods. Park equipment's a minimum of 30-feet from the edge of the traveled way. Equipment may be parked in the median if it meets the minimum distance requirement from both traveled ways or if it is protected by concrete barrier.

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

(NER13-0507)

46. Removing Pavement Marking.

Perform this work according to standard spec 646.3.4 and as hereinafter provided.

Pavement Markings required to be removed on permanent pavement (pavement that will remain at the completion of the contract) shall be blasted off the pavement. Grinding the markings off the pavement will not be allowed.

(NER14-1216)

47. Pavement Marking Outfall, Item 646.0805.S.**A Description**

This special provision describes furnishing and installing Pavement Marking Outfall according to standard spec 646, as shown on the plans, and as hereinafter provided. Pavement Marking Outfall shall consist of furnishing and installing white non-reflectorized markings of the specified material.

B Materials

Furnish paint that conforms to requirements of standard spec 646.2.2.

C Construction

Apply the paint a minimum thickness of 15 mils and position it on the pavement centered on the centerline of the outfall.

D Measurement

The department will measure Pavement Marking Outfall in place as units.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
646.0805.S	Pavement Marking Outfall	Each

Payment is full compensation for furnishing all materials; preparing the surface; and for applying and protecting the work.

646-035 (20030820)

48. 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 project 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 \pm 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 ft³/min air flow and 120 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 New Asphalt

Groove pavement five or more days after paving.

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

C.5.3 Existing Asphalt

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

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

C.6 Tape Application

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

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

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

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

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

D Measurement

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

E Payment

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

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

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

49. Intelligent Transportation Systems (ITS) – Control of Materials.

Standard spec 106.2 – Supply Source and Quality

Add the following to standard spec 106.2:

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

Department-Furnished Items
50-Foot Camera Poles
CCTV Cameras
72-Count Fiber Optic Cable
6-Count Fiber Optic Cable
Fiber Optic Splice Enclosures
Fiber Optic Termination Panels
Pole-Mounted Cabinets
Ethernet Switches
Microwave Vehicle Detectors
Terminal Servers

Coordinate pickup of department-furnished equipment with Randy Asman of the WisDOT NE Region at (920) 492-7719. Depending on the state-furnished item, pick up may occur at any of the following locations:

- WisDOT NE Region Office, 944 Vanderperren Way, Green Bay, WI 54304
- WisDOT Statewide Traffic Operations Center, 433 W. St. Paul Ave., Milwaukee, WI 53203
- Traffic & Parking Control Company (TAPCO), 5100 W. Brown Deer Road, Brown Deer, WI 53233

Transportation of the equipment between the pickup location and the field or interim location(s) is the responsibility of the contractor and is incidental to the bid items in the contract.

Large department-furnished equipment, such as camera poles will be delivered by the supplier to a contractor-controlled site within Outagamie County or Brown County. Delivery will not necessarily be in a “just in time” manner. Store the equipment until field installation. Provide location details and a contact for delivery coordination upon receiving the contract’s Notice to Proceed.

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

Standard spec 106.3 – Approval of Materials

Add the following to standard spec 106.3:

Design/Shop Drawings

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

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

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

1. Mounting assemblies for the vehicle speed and classification sensors, including their attachment to the structure.
2. Mounting LED warning signs to the sign structure.
3. Mounting detail for dynamic message signs.
4. Any contractor-designed structure or foundation.

The department will complete its review of the material within 30 days from the date of receipt of the submission, unless otherwise specified. The department will advise the contractor, in writing, as to the acceptability of the material submitted. The department may determine that if no exceptions were taken for the item, it is approved, and no further action is required by the contractor; or the item may be partially or totally rejected, in which case modify and/or amend the submittal as required by the department and resubmit the item within 14 days. At this time, the review and approval cycle described above will begin again. 670-005 (20150630)

50. Install Conduit Into Existing Item, Item 652.0700.S.

A Description

This special provision describes installing proposed conduit into an existing manhole, pull box, junction box, communication vault, or other structure.

B Materials

Use conduit, as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the requirements of pertinent provisions of the standard specifications.

C Construction

Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate sized hole for the entering conduit(s) at a location within the structure without disturbing the existing cabling and without hindering the installation of new cabling within the installed conduit. Fill void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure. Tamp backfill into place.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
652.0700.S	Install Conduit Into Existing Item	Each

Payment is full compensation for excavating, drilling holes; furnishing and installing all materials, including bricks, coarse aggregate, sand, bedding, and backfill; for excavating and backfilling; and for furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; and for making inspections.

652-070 (20100709)

51. Ramp Closure Gates Solar 40-FT, Item 662.2040.S.

A Description

This special provision describes providing solar-powered freeway on-ramp closure gates on type 5 steel luminaire poles.

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 superstrate. 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.

Regional Representative for Identification Number Issuance:
NE Region Electrical Unit – Bob Schuurmans
Phone: (920) 492-5710

D Measurement

The department will measure the Ramp Closure Gates Solar bid items as each individual installation, 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
662.2040.S	Ramp Closure Gates Solar 40-FT	EACH

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

662-010 (20140630)

52. Install Pole Mounted Cabinet, Item 673.0225.S.

A Description

This special provision describes installing department furnished aluminum enclosures on poles for intelligent transportation systems equipment.

B Materials

Use stainless steel bolts, nuts, and washers unless otherwise specified.

All conductors, terminals, and parts that could be hazardous to maintenance personnel shall be protected with suitable insulating material.

The cabinet will be equipped with service panels. Two panels shall be provided and mounted on the cabinet sidewalls. The left side panel shall be designated as “Input/Communications,” and the right side panel shall be designated as the “Service Panel.”

The service panel will be equipped with a four-outlet handi-box. Wire the handi-box to the series portion of the filtering surge protector.

Use metallic conduit, fittings, and adapters required from the underground conduit transition point to the cabinet as part of this item. A typical installation requires on 2-inch conduit. Use metallic conduit according to standard spec 652.

C Construction

Fasten the field cabinet securely onto a pole. Provide bolted stainless steel connections with lock washers, locking nuts, or other engineer-approved means to prevent the connection nuts from backing off. Isolate dissimilar materials from one another using stainless steel fittings. Make all power connections to the cabinet as specified in standard spec 656.

Drill and tap the cabinet, as necessary, to mount the terminal blocks and other attachments to the service panel, to provide an entrance on the back of the cabinet for cable from the pole mounted intelligent transportation systems equipment, and to mount the service panel to the cabinet as shown in the details. Remove all sharp edges or burrs, or both, caused by the cutting or drilling process. Seal all openings to prevent water from entering the cabinet. Mount the surge protector to the service panel.

Install metallic conduit on the exterior of the pole (for entrance to the cabinet from the ground) as shown in the plans, and according to the applicable requirements of standard spec 652.

D Measurement

The department will measure Install Pole Mounted Cabinet as each individual assembly, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
673.0225.S	Install Pole Mounted Cabinet	EACH

Payment is full compensation for installing the pole mounted cabinet; for making all connections and conduit/wire entrances; and for furnishing all testing.

673-010 (20100630)

53. Install Ethernet Switch, Item 675.0400.S.**A Description**

This special provision describes installing an Ethernet switch, and providing all necessary associated wiring.

B Materials

The department will furnish the Ethernet switch. Provide all necessary cables between the Ethernet switch and terminal server or other device.

C Construction

Install the Ethernet switch in a new or existing field cabinet. Connect it to devices as shown on the plans, or as directed by the engineer.

D Measurement

The department will measure Install Ethernet Switch by the unit, installed according to the contract, tested, and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
675.0400.S	Install Ethernet Switch	EACH

Payment is full compensation for installing an Ethernet switch; furnishing all necessary incidental hardware; and making all necessary connections.

675-040 (20100630)

54. Salvaged Pipe Underdrain Endwalls, Item SPV.0060.01.**A Description**

This special provision describes removing, storing and replacing the existing endwalls.

B Materials

When lengthening the existing pipe underdrain is necessary, use unperforated pipe underdrain with a diameter that matches the existing pipe. Use material that conforms to standard spec 612.

C Construction

Remove and store the salvaged endwalls at a safe location until the endwalls are ready to be mounted again in the newly constructed or extended drainage pipe.

When salvaging endwalls attached to pipe underdrain, if necessary, shorten or extend the pipe underdrain so that the uppermost section of the endwall is flush with the shoulder slope.

Remove, store and install the salvaged endwalls in a manner as to preclude damage to the endwalls. Replace any items designated for salvage that are damaged by the contractor at no expense to the department.

D Measurement

The department will measure Salvaged Pipe Underdrain Endwalls, completed according to the contract and accepted, by each individual unit.

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	Salvaged Pipe Underdrain Endwalls	EACH

Payment is full compensation for removing, transporting, storing and installing the existing endwalls; and for shortening or lengthening the existing underdrain as necessary.
(NER11-0128)

55. Ground Rod, Item SPV.0060.02.

A Description

This special provision describes furnishing and installing a ground rod and ground wire.

B Materials

Ground rod shall be copper clad steel with cladding 13 mils thick. The minimum diameter is 5/8-inch and the minimum length is eight feet. Ground wire shall be AWG # 6 bare, solid copper.

C Construction

Use exothermic welding to connect the ground wire to the rod. Install the rod vertically, or as close to vertical as conditions permit. Select locations with moist soil, if available. Place the rod at least 6 feet from all other ground rods.

D Measurement

The department will measure Ground Rod by each individual unit, acceptably installed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Ground Rod	EACH

Payment is full compensation for furnishing and installation of the ground rod and ground wire; welding and connections at both ends of the ground wire.

56. Pull Box Non-Conductive 24x42-Inch, Item SPV.0060.03.

A Description

This special provision describes furnishing and installing Pull Box Non-Conductive (24x42-inch) shown on the plans.

B Materials

Furnish pull boxes, frames, and lids made of non-conductive material. Pull boxes, frames, and lids shall be suitable for Tier 15 loading as specified in ANSI/SCTE 77.

C Construction

Provide pull boxes, frames, and lids made of non-conductive materials. The contractor may extend Pull Box Non-Conductive (size) as the plan details show using the same material as the pull box. Saw extensions parallel to the extension ring. Secure extension to original box as shown in the plan details. Excavate, place coarse aggregate drain material, and backfill as the plan details show. Dispose of surplus or unsuitable materials as specified under 205.3.12. Use covers stamped with "Electric" for traffic signal and lighting pull boxes or "WISDOT COMMUNICATIONS" for communications pull boxes.

Provide one 24" length of #6 reinforcing steel to be driven vertically on the north side of the pull box.

D Measurement

The department will measure Pull Box Non-Conductive 24x42-Inch as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Pull Box Non-Conductive 24x42-Inch	Each

Payment for Pull Box Non-Conductive (size) is full compensation for providing and installing pull boxes, frames, lids, aggregate, fasteners, reinforcing steel; conduit extensions less than 10 feet long including fittings; and for furnishing all excavating, backfilling and disposing of surplus material. The department will pay separately for engineer-directed pull box drain duct under the Conduit Rigid Nonmetallic bid items as specified in standard spec 652.5.

57. Install Terminal Server, Item SPV.0060.04.

A Description

This special provision describes installing a serial to Ethernet terminal server, and providing all necessary associated wiring.

B Materials

The department will furnish the terminal server. Provide all necessary cables between the Ethernet switch, terminal server, and serial device(s).

C Construction

Install the terminal server in a new or existing field cabinet. Connect it to devices as shown on the plans, or as directed by the engineer.

D Measurement

The department will measure Install Terminal Server by each individual unit, installed according to the contract, tested and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.04	Install Terminal Server	Each

Payment is full compensation for installation of the terminal server; furnishing all necessary incidental hardware; and making all necessary connections.

58. Removing Raised Pavement Markers, Item SPV.0060.05.

A Description

Remove existing casting and fill original saw cut area, as directed by the engineer or shown on the plans.

B Materials

Furnish materials according to standard spec 646.

C Construction

Remove existing pavement marker casting. Clean, dry and fill existing saw cut area with either epoxy or HMA pavement type specified at that location.

D Measurement

The department will measure Removing Raised Pavement Markers by each individual casting acceptably removed and filled with epoxy or HMA Pavement.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Removing Raised Pavement Markers	EACH

Payment for Removing Raised Pavement Markers is full compensation for removing, hauling, disposing of materials, and backfilling; cleaning and drying existing saw cut areas; and for furnishing and placing epoxy material or HMA Pavement.
(NER11-0303)

59. Resetting Pipe Ends, Item SPV.0060.06.

A Description

This special provision describes re-establishing the existing culvert pipe ends as shown on the plan.

B (Vacant)

C Construction

Perform all excavation, reset the pipe ends, install all joint ties, drill as necessary, shape, compact and finish as necessary to reset the existing sections of pipe to the elevation established by the engineer, according to the pertinent requirements of the standard specifications and as hereinafter provided. See the plans for size and number of sections to be reset.

Dispose of all surplus and unsuitable material properly according to standard spec 205.3.12.

D Measurement

The department will measure Resetting Pipe Ends by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.06	Resetting Pipe Ends	EACH

Payment is full compensation for furnishing all excavation; resetting the number of sections of pipe stated in the plan; installing joint ties; grading, shaping and compacting; and for furnishing and placing fill, salvaged topsoil, fertilizer, seed, and mulch.
(NER11-0128)

60. Install Scale CMS, Item SPV.0060.07.

A Description

This special provision describes obtaining and installing department furnished scale changeable message signs (CMS) on the type 1 scale signs as shown on the plans.

B Materials

The scale CMS will be provided by the department. The CMS will be available for pick up at 944 Vanderperren Way, Green Bay, WI 54304. The Contact the NE Region Electrical Unit at (920) 492 - 5654 a minimum of 3 days prior to the desired pick up date.

C Construction

Install the department furnished scale CMS on the type 1 scale signs as shown on the plans or directed by the engineer.

Make the connection in the pullbox, near the existing weigh station, how the plan describes. The splicing in the pullbox should be done according to standard spec 655.3.8.

D Measurement

The department will measure Install Scale CMS as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.07	Install Scale CMS	EACH

Payment is full compensation for obtaining and installing Scale CMS Signs.

61. Special Inlets Median 6 Grate, Item SPV.0060.08.**A Description**

Construct Special Inlets Median 6 Grate as shown on plans, or as directed by the engineer, and according to standard spec 611 and as hereinafter provided.

B Materials

Materials shall be according to standard spec 611.2.

C Construction

Construction shall be according to the plans and with standard spec 611.3.

D Measurement

The department will measure Special Inlets Median 6 Grate as each individual inlet, 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.0060.08	Special Inlets Median 6 Grate	EACH

Payment is full compensation according to standard spec 611.5.

62. Cleaning and Painting Bearings, Item SPV.0060.09.

A Description

This special provision describes cleaning and painting the existing steel bearings on structures as shown on the plans, as directed by the engineer, and according to standard spec 517.

B Materials

Furnish a complete epoxy coating system from the department's approved product list. Use the same coating system for all repairs due to handling, shipping and erecting, and for all other uncoated areas. The color of epoxy shall be white and the urethane coating material shall match the color number shown on the plans according to Federal Standard Number 595B, as printed in 1989. Supply the engineer with the product data sheets before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the minimum drying time for shop or field applied coats, and the recommended procedures for coating galvanized bolts, nuts, and washers.

C Construction

C.1 Surface Preparation

Clean areas of loose paint and rust by wire brushing, grinding, or other mechanical means. Sound paint does not need to be removed.

After clean up and storage of waste material, blast cleaning is allowed for only those areas where paint has been removed. Shield adjacent painted areas during blast cleaning operations. The blasting sand does not have to be collected.

Furnish adequate containment methods as required to contain and collect waste material resulting from the preparation of painted steel surfaces for painting. All clean up activities should minimize dust. Store waste materials in hazardous waste containers provided by the department.

C.2 Coating Application

Apply paint in a neat, workmanlike manner, and according to the manufacturer's instructions and recommendations. Paint application shall be brushed on.

D Measurement

The department will measure Cleaning and Painting Bearings as each individual bearing, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.09	Cleaning and Painting Bearings	EACH

Payment is full compensation for preparing and cleaning the designated bearings; furnishing and applying the paint; cleaning up, and containing and collecting all waste materials.

63. 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 specs 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 subplot 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 subplot where a QV sample is taken. For the subplot 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 in accordance with 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 will consist of 3750 tons with sublots of 750 tons. Partial lots with less than three subplot 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 & +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 in accordance with 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 subplot. 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 will 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 subplot 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 subplot.

[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 subplot 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 subplot basis. If an entire PWL subplot is removed and replaced, the test results of the newly placed material shall replace the original data for the subplot. 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 subplot) and the department will randomly conduct one (1) QV test per subplot. A partial quantity less than 1500 lane feet will be included with the previous subplot 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 in accordance with CMM 8-15. However, all acceptance testing of shoulders and appurtenances will be conducted by the department.]
- ⁽⁴⁾ The three QC locations per subplot 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 in accordance with 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/ft³ 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 subplot. 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 460.3.3.1) may be subject to remove and replace, at the discretion of the engineer. Replacement may be conducted on a subplot basis. If an entire PWL subplot is removed and replaced, the test results of the newly placed material shall replace the original data for the subplot. 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 in accordance with the *Calculations* worksheet of the WisDOT PWL Analysis Template:

PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY	
<i>PERCENT WITHIN LIMITS</i> (PWL)	<i>PAYMENT FACTOR, PF</i> (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 in accordance with Table 460-3. Pay adjustment will be determined on a lot basis and will be computed as shown in the following equation.

$$\text{Pay Adjustment} = (PF - 100) / 100 \times (WP) \times (\text{tonnage}) \times (\text{unit price})$$

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

<u>Parameter</u>	<u>WP</u>
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 in accordance with CMM 8-15.

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

ITEM NUMBER	DESCRIPTION	UNIT
460.2000	Incentive Density 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.

64. HMA Percent Within Limits (PWL) Test Strip, Item SPV.0060.10.

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 in accordance with 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:

<u>Sample Number</u>	<u>Production Interval (tons)</u>
<u>1</u>	<u>50-250</u>
<u>2</u>	<u>251-500</u>
<u>3</u>	<u>501-750</u>

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 in accordance with 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 in accordance with CMM 8-15. Nuclear gauge readings and pavement cores shall be used to determine nuclear gauge correlation in accordance with 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 in accordance with ASTM D 7227 prior to using specimens for in-place density determination in accordance with 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 ≤ 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
$\leq 12.5\text{mm}$ (1/2")	105 lb
19.0mm - 25.0mm (3/4" – 1")	150 lb
$\geq 37.5\text{mm}$ (1-1/2")	240 lb

Bulk specific gravities shall be determined for cores in accordance with 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 & +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:

<u>MIXTURE TYPE</u>		
LAYER	LT & 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 in accordance with 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 in accordance with 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 & Material Acceptance
≥ 75 (individual) & 80 (combined)	Material conforms, Test Strip is acceptable
$50 \leq \text{PWL} < 75$	Material conforms, Test Strip is not acceptable*
< 50	Material nonconforming, may be removed & 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 in accordance with standard spec 450.4 and detailed here within.

E Payment

The department will pay for HMA Percent Within Limits (PWL) Test Strip work at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.10	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 in accordance with Appendix A:

PAY ADJUSTMENT FOR HMA PAVEMENT AIR VOIDS & DENSITY

PERCENT WITHIN LIMITS

(PWL)

> 90 to 100

≥ 50 to 90

<50

PAYMENT FACTOR, PF

(percent of contract price)

$PF = ((PWL - 90) * 0.4) + 100$

$(PWL * 0.5) + 55$

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 in accordance with Table 460-3. Pay adjustment will be determined for an acceptably completed test strip and will be computed as shown in the following equation.

$$\text{Pay Adjustment} = (PF - 100) / 100 \times (WP) \times (\text{tonnage}) \times (\text{unit price})$$

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

<u>Parameter</u>	<u>WP</u>
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 in accordance with CMM 8-15.

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

ITEM NUMBER	DESCRIPTION	UNIT
460.2000	Incentive Density 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.

Appendix A

TEST Methods & Sampling for PWL QMP HMA Pavements

· TEST Methods & Sampling for PWL QMP HMA Pavement.

- The following are included as incidental to the HMA Pavement Percent Within Limits Quality Management Program (PWL QMP) special provision:
 - WisDOT Test Strip for Nuclear Gauge/Core Correlation
 - WisDOT Test Method for PWL QMP Density Measurements for Main Production
 - Sampling for WisDOT PWL QMP

WisDOT Test Strip for Nuclear Gauge/Core Correlation

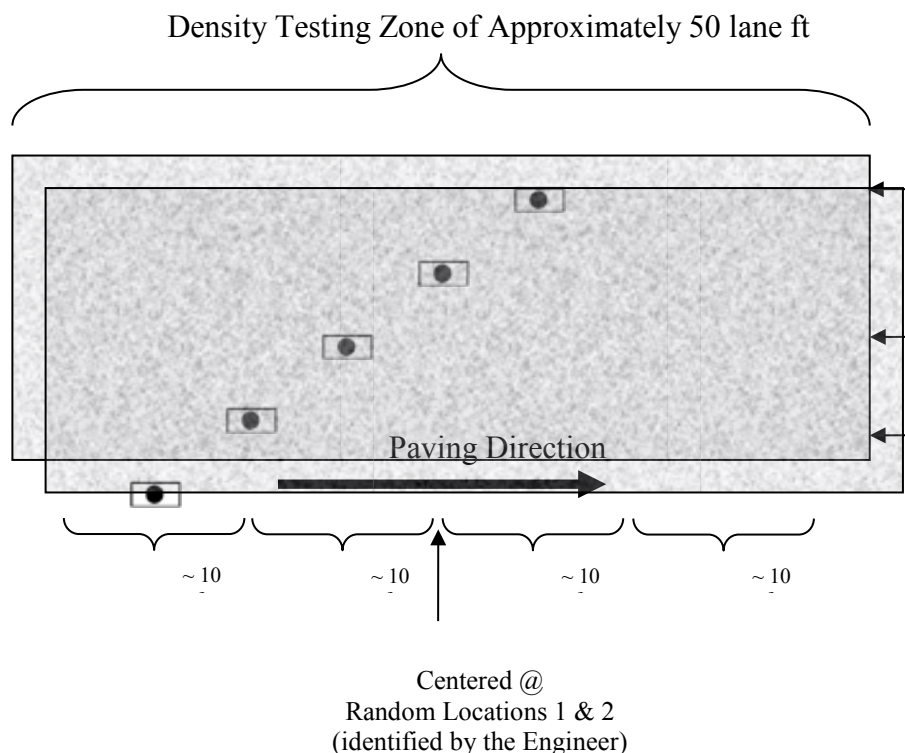
The engineer is responsible for identifying the two zones in which gauge/core correlation is to be performed. These two zones are to be randomly selected within each of two sublots of the 750 ton test strip. Test strip sublots 1 and 2 are identified as between 50-400 tons and 401-750 tons, respectively.

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 $\pm 1.0 \text{ lb/ft}^3$ 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:




Outermost locations to be kept approx. 1 ft from edge of lane to the edge of gauge

Middle locations @ approx. Center Line of Lane

Intermediate locations to be at approx. third points transversely

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 in accordance with ASTM D 7227 prior to using specimens for in-place density determination in accordance with 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 ≤ 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 in accordance with 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 & Material Acceptance
>75 (individual) & 80 (combined)	Material conforms, Test Strip is acceptable
$50 \leq \text{PWL} \leq 75$	Material conforms, Test Strip is not acceptable*
< 50	Material nonconforming, may be removed & 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.

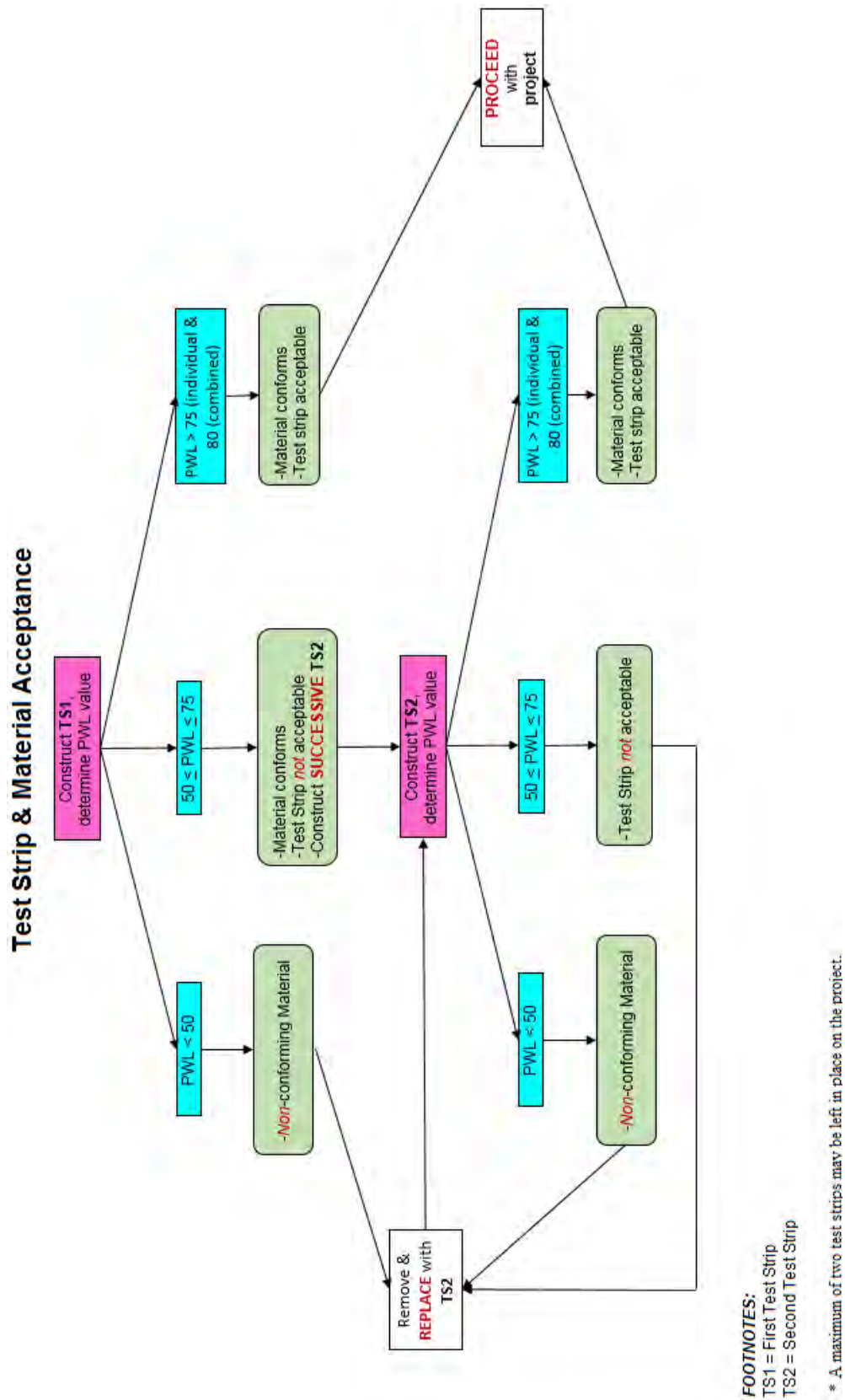


Figure 3: Flowchart for guidance of material and test strip acceptance for PWL

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 subplot, with a subplot 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 in accordance with CMM 8-15). Longitudinal locations within each subplot 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 subplot. 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.

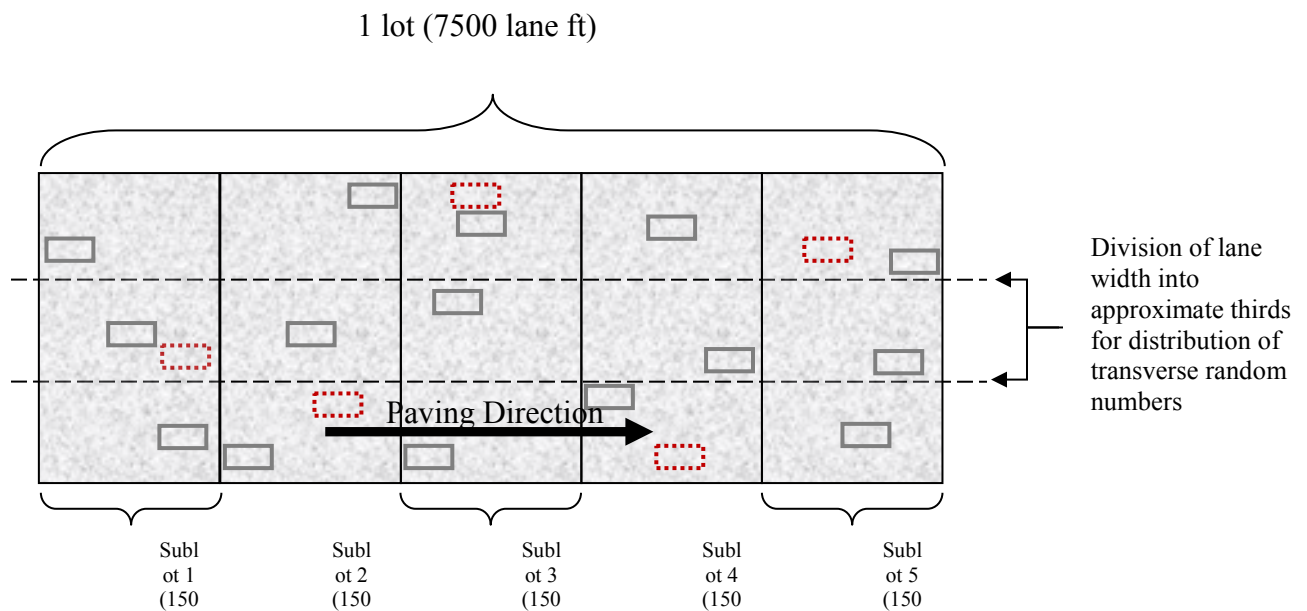


Figure 3: Locations of main lane HMA density testing (QC=solid lines, QV=dashed)

QC and QV nuclear density gauge readings will be statistically analyzed in accordance with 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 subplot 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 subplot.

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 subplot tonnage. This number will then be added to the final tonnage of the previous subplot 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 subplot 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 subplot 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
$\leq 12.5\text{mm}$ (1/2")	105 lb
19.0mm - 25.0mm (3/4" – 1")	150 lb
$\geq 37.5\text{mm}$ (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.

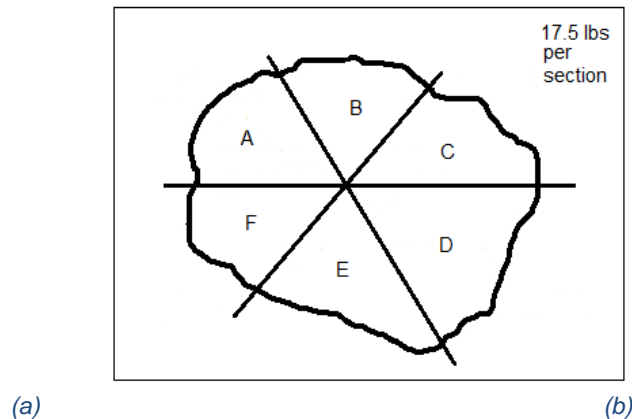
Delete 8-36.5.1.1 Step 1 and replace with the following *Initial Splitting of Sample*

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 & 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



- 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 & 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)

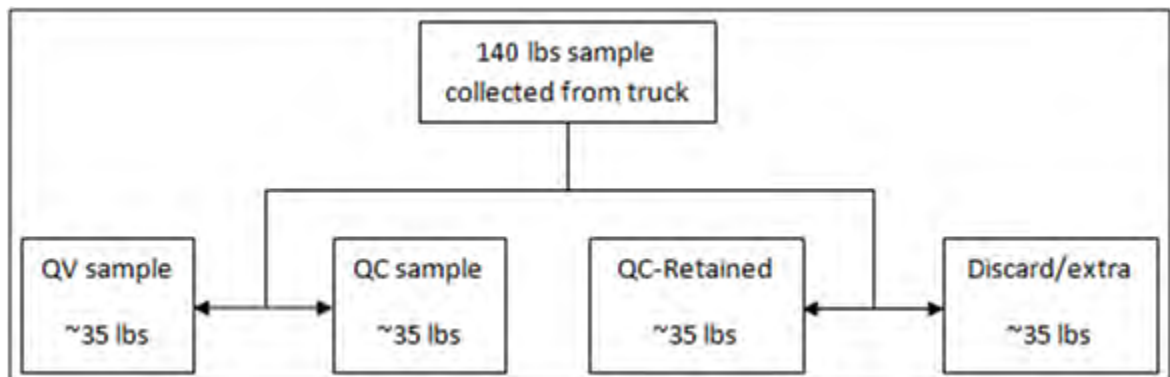
Use of other devices to assist in the sampling and splitting procedures may be used with approval of the department. The Quartermaster is one such device. A picture of a Quartermaster device is shown in Figure 6.

Figure 6 Quartermaster Quartering Device



Example 3

If a quartermaster is used to reduce a three-way split sample into the proper quantities, 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.



65. Street Sweeping, Item SPV.0075.01.

A Description

Remove small dirt and dust particles from the roadway using a street sweeper periodically during the project as directed by the engineer.

B (Vacant)

C Construction

Provide a self-contained mechanical or air conveyance street sweeper and dispose the accumulated material.

D Measurement

The department will measure Street Sweeping by the hour that the street sweeper is on the project picking up and removing debris from the roadway, 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.0075.01	Street Sweeping	HRS

Payment is full compensation for furnishing street sweeper; sweeping roadway; and for disposing of the material collected.
(NER15-0430)

66. Construction Staking Subbase, Item SPV.0090.01.**A Description**

This special provision describes construction staking subbase, as shown in the plans.

B (Vacant)**C Construction**

Set construction stakes or marks at intervals of 100 feet, or more frequently, for rural sections and at intervals of 50 feet, or more frequently, for urban sections. Include additional stakes at each cross-section as necessary to match the plan cross-section, achieve the required accuracy, and to support construction operations. Also set and maintain stakes as necessary to establish the horizontal and vertical positions of intersecting road radii, auxiliary lanes, horizontal and vertical curves, and curve transitions. Locate stakes to within 0.25 feet horizontally and establish the grade elevation to within 0.03 feet vertically.

D Measurement

The department will measure Construction Staking Subbase by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.01	Construction Staking Subbase	LF

Payment is full compensation for full compensation for locating and setting all construction stakes; for relocating and resetting damaged or missing construction stakes; and for furnishing all incidentals necessary to complete this item of work.

67. Glare Screens Temporary, Item SPV.0090.02.

A Description

The work under this item shall include furnishing, installing, maintaining, and removing a modular paddle glare guard system on concrete barrier temporary precast at the indicated locations according to the plans and standard specifications, as directed by the engineer and as hereinafter provided.

B Materials

Glare guard units shall be modular units consisting of vertical blades, bases, and a horizontal base rail. The paddle devices shall be a minimum of 24-inches in height and be constructed of durable, impact resistant, non-warping flexible materials.

Units shall be modular in design to provide for portability, quick repair and easy installation. The cumulative nominal length of the modular units shall equal the length of the temporary barrier on which they are installed so that the joint between the barrier sections shall not be spanned by any one unit. Units shall not alter the design of the concrete barrier.

The relative connection strengths between various components of the assembly shall be designed to minimize the potential impact and debris hazard to approaching traffic and to simplify repairs. The modular units shall be fabricated in a manner to allow replacement of individual blades while the modular unit remains in place.

The blade, base and rail shall be made of high impact materials with sufficient strength to withstand three impacts from a horizontal steel bar traveling at 40 mph and impacting at mid-height of the blade. After three impacts, there shall be no evidence of cracking, splitting, delaminating or separation from the system.

The paddle glare guard provided shall be a material manufactured by Safe-Hit Corporation, 2405 IH 35 West, New Braunfels, Texas, 78130; Carsonite International, 2900 Lockhead Way, Carson City, Nevada, 89701; Flexstake Incorporated, 2150 Andrea Lane, Fort Myers, Florida, 33912; or approved equal.

C Construction

Attachment of the base rail to the top of the concrete barrier temporary precast shall be by means of a mechanical or adhesive system with a minimum pullout and shear of 3000 psi. All mounting hardware shall be as specified by the manufacturer.

D Measurement

The department will measure Glare Screens Temporary by the linear foot of paddle glare guard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.02	Glare Screens Temporary	LF

Payment is full compensation for furnishing, installing, maintaining and removing the Glare Screens Temporary.
(NER11-0202)

68. Concrete Barrier Temporary Precast Anchoring, Item SPV.0090.03.

A Description

This special provision describes anchoring temporary concrete barrier. Perform this work according to applicable portions of standard spec 603 and as hereinafter provided.

B (Vacant)

C Construction

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

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

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

D Measurement

The department will measure Concrete Barrier Temporary Precast Anchoring by the linear foot, acceptably completed, measured as the linear feet of barrier initially installed or reinstalled. The department will not measure anchoring made solely to accommodate the contractor's means and methods.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.03	Concrete Barrier Temporary Precast Anchoring	LF

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

69. Temporary Drain Slotted Vane Longitudinal, Item SPV.0090.04.

A Description

This special provision describes furnishing, installing and removing a temporary slotted vane drains and pipe as shown on the plans, according to standard spec 204, 501, 505, 607, and 611, and as hereinafter provided.

B Materials

The pipe that the vane drain casting rests in shall be 15-inch diameter SDR-35 poly vinyl chloride, (PVC) sewer pipe. Provide QMP for class II ancillary concrete as specified in standard spec 716.

C Construction

Prior to encasing the pipe in concrete, cover the upper end of the slotted drain as shown on the plans, or as approved by the engineer.

Prior to construction operations adjacent to the slotted area of the slotted vane drain pipe, cover the slots on the top of the drain. Remove any material entering the pipe at the contractor's expense.

Exercise care to avoid damage to the slotted vane drainpipe. If any section of pipe is damaged or is unsatisfactory as determined by the engineer, replace the drainpipe at contractor's expense.

Conform to standard spec 204.3 for removal of drain slotted vain longitudinal and pvc sewer pipe.

D Measurement

The department will measure Temporary Drain Slotted Vane Longitudinal 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.0090.04	Temporary Drain Slotted Vane Longitudinal	LF

Payment is full compensation for furnishing and installing all materials, including PVC pipe and end cap, slotted vane drain castings, concrete masonry and reinforcement; adjusting bricks; drilling inlet or manhole cover to accommodate connection bolts to vane drain; hauling and placing the pipe; making connections to existing inlets; and for cleaning out and restoring site of work after construction and removal.

70. Longitudinal Asphaltic Joint Repair, Item SPV.0090.05.

A Description

This special provision describes removing, furnishing, and installing necessary materials for Longitudinal Asphaltic Joint Repair.

B Materials

Furnish materials according to standard spec 460.

C Construction

Mill the deteriorated joint at a width and depth consistent with the construction detail drawing. The milled section shall be free and clear of debris prior to applying tack coat.

D Measurement

The department will measure Longitudinal Asphaltic Joint Repair by the linear foot acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.05	Longitudinal Asphaltic Joint Repair	LF

Payment is full compensation for removing deteriorated joint and disposing of removed materials; for cleaning out trench; for providing, transporting, heating, diluting tack coat; for providing mix design; for preparing foundation; for furnishing, preparing, hauling, mixing, placing, and compacting HMA mixture.

71. Televising Storm Sewer and Culvert Pipes, Item SPV.0090.06.

A Description

Inspect and document all storm sewer trunk-lines, inlet leads, laterals, manholes, and culvert pipes specified in the plans or as directed by the engineer with closed circuit television as shown on the plans and as hereinafter provided.

B Materials

B.1 Video Recording

The entire inspection must be recorded on a DVD, capable of being viewed on a DVD player or Windows media player.

B.2 Closed Circuit Television Camera

Television equipment shall include television camera, television monitor, cables, power source, lights and other equipment. The television camera shall be specifically designed and constructed for operation in connection with sewer inspection and include the following features:

- a. Pan and Tilt Radial View Color Sewer TV Camera.
- b. 360 Degree Radial x 300 Degree Pan and Tilt Viewing Field.
- c. Multi-Conductor.
- d. Remote Adjustable Optical Focus, Remote Light Compensating Iris.
- e. Automatic White Balance Circuitry, NTSC Color.
- f. Low Light, 3 Lux Camera.

The pan and tilt view camera to be specifically designed to provide a close-up view of sewer pipe walls and lateral entrances through the use of a low light sensitive camera, movable camera head and directional lighting. Unit to be color, and designed for operation through up to 2,000-feet of multi-conductor cable in sanitary and storm sewers. Chassis construction to be 100% solid state circuitry designed to withstand shocks and vibration normally sustained while being pulled through a pipe. The image pick-up device to be low light sensitive, 3 Lux, solid-state camera incorporating the latest high resolution closed circuit television technology. Operating climatic ranges of the camera is to be -10°C to +30°C, and up to 100% relative humidity.

The remote reading footage counter is to be accurate to 1% over the length of the particular section being inspected and mounted over the television monitor.

B.3 Pipe Cleaning Equipment

Pipe cleaning equipment shall consist of a jet cleaner with a vacuum/air transport debris removal system.

The water pump system on the cleaning vehicle must have the ability to pump between 50 to 65-gallons per minute at a pressure of 1,200 to 1,500 pounds per square inch. Units with pumps smaller than this will not be acceptable.

C Construction

C.1 Sewer Flow Control

When sewer depth of flow at the upstream manhole of the manhole section being worked is above the maximum allowable for television inspection, joint testing and/or sealing; reduce flow to the level shown below by operation of pump stations, plugging or blocking of the flow, or by pumping and bypassing of the flow, as specified.

Depth of flow shall not exceed that shown below for the respective pipe sizes, as measured in the manhole when performing television inspection.

(1) Maximum Depth of Flow Television Inspection

(2) 6 to 10-inch Pipe 20% Of Pipe Diameter

(3) 12 to 24-inch Pipe 25% Of Pipe Diameter

(4) 27-inch and Larger Pipe 30% Of Pipe Diameter

Plugging or Blocking: Insert a sewer line plug into the line upstream of the section being worked. The plug is to be designed so that all or any portion of the sewage can be released. During television inspection, testing and sealing operations, reduce flow to be within the limits specified above. After the work has been completed, restore flow to normal.

Pumping and Bypassing: When pumping and bypassing is required, supply the pumps, conduits and other equipment to divert the flow of sewage around the manhole section in which work is to be performed. The bypass system is to be of sufficient capacity to handle existing flow, plus additional flow that may occur during a rainstorm. Furnish the necessary labor and supervision to set up and operate the pumping and bypassing system. If pumping is required on a 24-hour basis, equip engines in a manner to keep noise to a minimum.

Flow Control Precautions: When flow in a sewer line is plugged, blocked or bypassed, take sufficient precautions to protect the sewer lines from damage that might result from sewer surcharging. Precautions must be taken to ensure that sewer flow control operations do not cause flooding or damage to public or private property being serviced by the sewers involved.

C.2 Preparation/Coordination

Dispose of any and all debris removed from the sewers during the cleaning process in compliance with all Federal, State and local requirements. Pay any and all fees associated with the proper disposal of these materials. The Village of Kimberly will not have a disposal site available.

C.3 Television Inspection

Move camera through the line in either direction at a uniform rate, but no greater than 30-feet per minute, stopping when necessary to ensure proper documentation of the sewer's condition. Use manual winches, power winches, TV cable and powered rewinds, or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions, when moving the camera through the sewer line. If, during the inspection operation, the television camera will not pass through the entire manhole section, reset the equipment in a manner so the inspection can be performed from the opposite manhole.

In the event the section being televised has substantial flow entering the sewer between manholes, such that inspection of the sewer is impaired, coordinate with the owner of source of flow to have such flow temporarily stopped and/or reschedule television inspection of the particular section to a time when such flow is reduced to permit proceeding with the television inspection.

When sewer line depth of flow at the upstream manhole of the section being televised is above the maximum allowable for television inspection, reduce the flow to permit proceeding with the television inspection.

Whenever non-remote powered and controlled winches are used to pull the television camera through the line, telephones, use radios or other suitable means of communication set up between the two manholes of the section being inspected to ensure that adequate communications exist between members of the crews.

Check accuracy of the measurement meters daily by use of a walking meter, roll-a-tape or other suitable device. Begin footage measurements at the sewer line point of penetration of the upstream manhole, unless specific permission is given to do otherwise. Show footage on the video data view at all times.

C.4 Documentation of Television Results

Document television inspections through the use of an in-vehicle computer system; system to be IBM compatible on a 3.5-inch disk or CD. All defects and general information on the pipe being viewed along with an index for retrieving the information must be supplied to the Village of Kimberly as part of the report.

Television inspection logs to be typed or computer printed, and be acceptable to the engineer. Printed location reports shall clearly show the location, in relation to adjacent manholes, of each source of infiltration discovered. In addition, record other data of significance, including the location of buildings and house service connections, joints, unusual conditions, roots, storm sewer connections, collapsed sections, presence of scale and corrosion, and other discernible features. Include a voice recording on the DVD that makes brief and informative comments on the sewer conditions.

The measurement of distance to defects is critical in confirming the location of areas to be excavated. Make color DVD recordings of the data on the television monitor. Provide two copies of each DVD for the engineer.

Speed of recording playback to be the same speed that it was recorded. Establish tabs for the start of each sewer segment. All DVD's and necessary playback equipment to be readily accessible for review by the engineer during the televising process.

Include the following information on the DVD's and computer logs:

A. DVD Data View:

- (a) Report number.
- (b) Date of television inspection.
- (c) Upstream and downstream manhole numbers.
- (d) Current distance along reach.
- (e) Printed labels on the container and DVD, with location information, date, format information and other descriptive information.

B. DVD Audio:

- (a) Date and time of television inspection, operator name and name of adjacent street.
- (b) Verbal confirmation of upstream and downstream manhole numbers and TV direction in relation to direction of flow.
- (c) Verbal description of pipe size, type and pipe joint length.
- (d) Verbal description and location of each service connection and pipe defect.
- (e) Type of weather during inspection.

C. Computerized Logs:

- (a) Location of each point of leakage.
- (b) Location of each service connection.
- (c) Location of any damaged sections, nature of damage and location with respect to pipe axis.
- (d) Deflection in alignment or grade of pipe.
- (e) Record of repairs and quantity of sealing material used (if applicable).
- (f) Date, time, municipality, street, basin, manhole section, reference manhole number, name of operator, inspector and weather conditions.
- (g) Pipe diameter, pipe material, section length and corresponding DVD identification.

C.5 Cleaning Requirements

Remove all debris and sediment to assure that the storm sewer or culvert pipe can perform as designed.

C.6 Manhole Inspection Reports

Provide digital photographs of each manhole including:

- (1) Casting / frame at ground surface.
- (2) Bench.
- (3) General inside.
- (4) Observed leaks or structural failures.
- (5) Provide copies of digital photos printed out with all photographs of each structure on one each 8½" x 11" sheet.
- (6) Provide a computer CD with all pictures indexed by a structure identification number, which is the same as the structure identification number included in the televising reports.

D Measurement

The department will measure Televising Storm Sewer and Culvert Pipes by the linear foot, acceptably completed. Measure along the centerline of the pipe, from the pipe end at a free outlet to the center of the end catch basin, inlet, manhole, lateral junction or other drainage structure; or from center to center of end catch basins, manholes, laterals, inlets, other drainage structures or junctions. The department will not make deductions from these measured lengths for intermediate catch basins, manholes, inlets, or other drainage structures, junctions or fittings.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.06	Televising Storm Sewer and Culvert Pipes	LF

Payment is full compensation for providing all labor and materials necessary to properly perform the work described under this section. Cleaning pipe required for televising will be separately paid under item 520.8700 Cleaning Culvert Pipes.

72. Salvage Luminaire and Truss Arm, Item SPV.0105.01.**A Description**

This special provision describes removing and disposing of the existing light pole; obtaining and installing a department furnished pole; removing, storing, and reinstalling luminaire and truss arm on the department furnished pole, as well as disconnecting, storing, and reconnecting electrical feed to the department furnished pole, as shown on the plans.

B Materials

The light pole will be provided by the department. The light pole will be available for pick up at 944 Vanderperren Way, Green Bay, WI 54304. The Contact the NE Region Electrical Unit at (920) 492 - 5654 a minimum of three days prior to the desired pick up date.

C Construction

Remove the pole, truss arm, and luminaire. Store the salvaged truss/luminaire at a safe location until the department furnished pole is ready to be placed. Replace any items that are damaged by the contractor at no expense to the department. The contractor becomes the owner of the existing light pole and is responsible for its disposal.

Before removing the pole, the existing electrical feed shall be disconnected, rolled up, and stored at the downstream pole. Following installation of new pole, reconnect the existing electrical wire to the newly placed pole.

Place the new pole at the location shown on the plans and install the salvaged truss arm and luminaire according to the plans and with standard spec 657.3 and 659.3 or as directed by the engineer. Reconnect electrical service and restore power to complete installation.

D Measurement

The department will measure the Salvage Luminaire and Truss Arm as a single lump sum unit of work for each lighting unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Salvage Luminaire and Truss Arm	LS

Payment is full compensation for removing and disposing of the existing light pole; obtaining and installing a new department furnished pole; removing, storing, and reinstalling luminaire and truss arm on the new pole, as well as disconnecting, storing, and reconnecting electrical feed to the new pole, as shown on the plans.

73. Insulation Board Polystyrene 3 1/8-Inch, Item SPV.0165.01.

A Description

This special provision describes furnishing and placing polystyrene insulation board as shown on the plans and as hereinafter provided.

B Materials

Use rigid cellular polystyrene that meets the requirements of ASTM C578, Classification Type IV (4) and has a minimum density of 1.6 pcf, and minimum compressive strength of 25 psi.

C Construction

Place polystyrene insulation board as shown on the plans. Use continuous sheets of polystyrene at beam seats and between beam seats, as practical.

D Measurement

The department will measure Insulation Board Polystyrene 3 1/8-Inch by area in square feet of work, completed and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Insulation Board Polystyrene 3 1/8-Inch	SF

Payment is full compensation for furnishing and placing the polystyrene insulation board as shown on the plans.

74. Concrete Base 12-Inch, Item SPV.0180.01.

A Description

This special provision describes constructing concrete base, as shown in the plans.

B Materials

Furnish materials according to standard spec 415 except use grade A, A-FA, A-S, A-IS, A-IP, or A-IT concrete as specified in standard spec 501. Provide QMP for class 1 ancillary as specified in standard spec 715.

C Construction

Construct concrete subbase according to standard spec 320.

D Measurement

The department will measure Concrete Base 12-Inch by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Concrete Base 12-Inch	SY

Payment for bid items under this section is full compensation for providing curing, and protecting concrete; and for providing tie bars and dowel bars in unhardened concrete. For tie bars and dowel bars provided in concrete not placed under the contract, the department will pay separately under the Drilled Tie Bars and Drilled Dowel Bars bid items as specified in standard spec 416.5.

75. Concrete Joint Sealing, Item SPV.0180.02.**A Description**

This special provision describes furnishing and installing joint sealer for concrete pavement as shown on the plans, and as hereinafter provided.

B Materials

Use a sealant material meeting the requirements of ASTM D6690 Type II: Joint and Crack Sealants, Hot Applied, for Asphalt and Concrete Pavements. Deliver the sealant in the manufacturer's original sealed container legibly marked with the following information:

- Manufacturer's name.
- Trade name of sealant.
- Manufacturer's batch or lot number.
- ASTM D6690, Type II.
- Minimum application temperature.
- Maximum (or safe) heating temperature.

Prior to commencing work, provide the engineer with a certificate of compliance along with a copy of the manufacturer's recommendations pertaining to heating and application of the sealant.

C Construction

Add the following to standard spec 415.3 as follows:

Place joint sealer as shown on the plans and according to the manufacturer's instructions. All longitudinal, transverse, and construction joints shall be sealed prior to allowing any traffic on the pavement.

Joints shall not be sealed until they have been inspected and approved by the engineer.

Should any spalling of the sawed edges occur that would in the judgment of the engineer detrimentally affect the joint-sealing ability, such spalled areas shall be patched with an approved epoxy which shall be allowed to harden prior to installation of the joint seal. Each patch shall be true to the intended neat lines of the finished cut joint.

Application of the joint sealer shall be made when the joint surfaces are clean and dry.

Joints shall be cleaned and dried to accept the sealing material according to the manufacturer's recommendations.

All longitudinal and transverse concrete pavement joints, including the joint between the pavement and the curb and gutter and any joints in the curb and gutter shall be sealed. The sealant shall be tooled flush with or recessed up to a maximum of $1/16'' \pm 1/64''$ below the concrete surface. Overbonding will not be allowed. Material remaining on the surface of the pavement shall be removed without damaging the sealant in the joint.

D Measurement

The department will measure Concrete Joint Sealing by the square yard of pavement sealed and 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.0180.02	Concrete Joint Sealing	SY

Payment is full compensation for furnishing all materials, sawing joints, sealing all joints within concrete pavement and curb and gutter.

(NER14-1126)

**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 7 (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 PROGRAM

1. Description

General

- a. The disadvantaged business enterprise (DBE) requirements of 49 CFR Part 26 apply to this contract. The department's DBE goal is shown on the cover of the bidding proposal. The contractor can meet the specified contract DBE goal by procuring services or materials from a DBE or by subcontracting work to 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.
- b. 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.
- c. The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.
- d. For 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

- a. Interpret these terms, used throughout this additional special provision, as follows:
 - i. **Bid Percentage:** The DBE percentage indicated in the bidding proposal at the time of bid.
 - ii. **DBE:** A disadvantaged business enterprise (DBE) certified as a DBE by the department and included on the department's list of certified DBE's who are determined to be ready, willing and able.
 - iii. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.
 - iv. **Discretionary Goal:** A contractor assigned DBE goal, typically abbreviated as "Disc" on the cover of the Highway Work Proposal, which is enforced as committed.
 - v. **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.
 - vi. **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.
 - vii. **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, including projects with discretionary goals. 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. 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. Department's DBE Evaluation Process

a. Documentation Submittal

Within 10 business days after the notification of contract award, 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] and all necessary attachment A forms, as well as, Good Faith Waiver Form [DT1202] and supporting documentation as necessary. If the contractor fails to furnish the required forms 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.

i. 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 achieved. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

ii. Bidder Does Not Meet DBE Goal

- (1) 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 Waiver 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 waiver request.
- (2) The department will review the bidder's good faith waiver request and notify the bidder of one of the following:
 - a. If the department grants a good faith waiver, the bid is eligible for contract execution with respect to DBE commitment.
 - b. If the department rejects the good faith waiver request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith waiver request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

5. Department's Criteria for Good Faith Effort

The Code of Federal Regulations {CFR}, 49 CFR Part 26-Appendix A, is the guiding regulation concerning good faith efforts. However, the federal regulations do not 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 process when making a determination of good faith.

- a. The department will only grant a good faith waiver 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 waiver 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.

- b. 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.
- c. Prime Contractors should:
 - i. 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.
 - ii. 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.
 - (1) Solicit quotes through all reasonable and available means from certified DBE firms who match 'possible items to subcontract' and send copies to DBESS office, highlighting areas in which you are seeking quotes. Email is acceptable.
 - (2) 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 {ideally two Fridays before the letting} to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking them if they need help in putting together a quote, or helping to arrange for equipment needs, or solve other problems.
 - (3) Second solicitation should take place within 5 days
 - a. An email solicitation is highly recommended for this second solicitation
 - (4) 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.
 - (5) When potential exists, advise interested DBE firms on how to obtain bonding, line of credit or insurance as may be requested.
 - (6) 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. Copy of the DBE quotes
 - e. Signed copy of Bid Express SBN Record of Subcontractor Outreach Effort.

- d. Evaluate DBE quotes as documentation is critical if the prime does not utilize the DBE firm's quote for any reason.
- i. 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 directly regarding their ability to perform the work indicated in the UCP directory as their work area [NAICS code]; only the work area and/or NAICS code listed in the UCP directory will be counted for DBE credit. Documentation of the conversation is required.
 - ii. In striving to meet a DBE conscious 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.
 - iii. **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.
 - (1) Compare bid items common to both quotes, noting the reasonableness in the price comparison.
 - (2) 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.
- e. After notification of contract award, submit '**Commitment to Subcontract**' form within the time period specified in the contract.
- i. Provide the following information along with department form DT1202:
 - (1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact. A printed copy of SBN solicitation is acceptable.
 - (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.
 - (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.
- f. The department's DBE Support Services Office is available by phone, email or in writing to request assistance in meeting the DBE goal:

DBE Support Services Office
6150 Fond du Lac Ave.
Milwaukee, WI 53218
Phone: 414-438-4583 / 608-266-6961
Fax: 414-438-5392
E-mail: DOTDBESupportServices@dot.wi.gov

6. Bidder's Appeal Process

- a. A bidder can appeal the department's decision to deny the bidder's good faith waiver request. 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 notice of rejection of a good faith waiver request under constitutes a forfeiture of the bidder's right of appeal. If the bidder does not appeal, the department may declare the bid ineligible for execution.
- 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 7 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.

7. Department's Criteria for DBE Participation

Department's DBE List

- a. The department maintains a DBE list on the department's website
<http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/ucp-directory.xlsx>
- b. The DBE office is also available to assist at 414-438-4583 or 608-266-6961.

8. 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 the DBE's ability to perform the work with the use of the UCP directory.

9. Commercially Useful Function

- a. The department counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.
- b. A DBE is performing a commercially useful function if the following conditions are met:
- c. 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.
- d. For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

10. Trucking

All bidders are expected to adhere to the department's current trucking policy posted on the HCCI website

<http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf>

11. Manufacturers and Suppliers

The department counts material and supplies a DBE provides under the contract. The department will give full credit toward the DBE goal if the DBE is a manufacturer of those materials or supplies. The department will give 60 percent credit toward the DBE goal if the DBE is merely a supplier of those materials or supplies. 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.

12. DBE Prime

If the prime contractor is a DBE, the department will only count the work the contractor performs with its own forces, the work DBE subcontractors perform, and the work DBE suppliers or manufacturers perform.

13. 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.

14. Mentor Protégé

- a. If a DBE performs as a participant in a mentor protégé agreement, the department will credit the portion of the work performed by the DBE protégé firm
- b. On every other project that the mentor protégé team identifies itself on.
- c. For no more than one half of the total contracted DBE goal on any WisDOT project.

15. DBE Replacement

In the event a Prime Contractor needs to replace a DBE firm originally listed on the approved DBE Commitment Form DT1506, the Prime Contractor must comply with the department's DBE Replacement Policy located on the DBE page on the following web site:

<http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/policy-statement.pdf>

16. Changes to the approved DBE Commitment Form DT1506

If there are any changes to the approved Commitment to Subcontract to DBE Form DT1506, the prime contractor must submit a revised DBE Commitment Form DT1506 and relevant attachment A(s) to the DBE Programs Office within 5 business days.

17. 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.

18. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

APPENDIX A
Sample Contractor Solicitation Letter Page 1
This sample is provided as a guide not a requirement

GFW SAMPLE MEMORANDUM

TO: DBE FIRMS
FROM: POTENTIAL PRIME CONTRACTOR OR MAJOR SUBCONTRACTOR
SUBJECT: REQUEST FOR DBE QUOTES
LET DATE & TIME
DATE: MONTH DAY YEAR
CC: DBE OFFICE ENGINEER

Our company is considering bidding on the projects indicated on the next page, as a prime and/or a subcontractor for the Wisconsin Department of Transportation Month- date -year Letting. Page 2 lists the projects and work items that we may subcontract for this letting. We are interested in obtaining subcontractor quotes for these projects and work categories. Also note that we are willing to accept quotes in areas we may be planning to perform ourselves as required by federal rules.

Please review page 2, respond whether you plan to quote, highlight the projects and work items you are interested in performing and return it via fax or email within 3 days. Plans, specifications and addenda are available through WisDOT at the DBE Support Services office or at the Highway Construction Contract Information (HCCI) site at <http://roadwaystandards.dot.wi.gov/hcci/>

Your quote should include all of the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Page 2, with the indicated projects and items you plan to quote, should be used as a cover sheet for your quote.

Please make every effort to have your quotes into our office by time deadline the prior to the letting date. **Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.** We prefer quotes be sent via SBN but prime's alternative's 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 some one contact me at this number

Prime Contractor 's Contact Person

Phone: _____
Fax: _____
Email: _____

DBE Contractor Contact Person

Phone: _____
Fax: _____
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 alternative's 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 an 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.
-

455.3.2.1 General

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

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

460.2.1 General

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

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

460.2.8.2.1.5 Control Limits

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

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

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

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

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

460.2.8.2.1.6 Job Mix Formula Adjustment

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

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

460.2.8.3.1.6 Acceptable Verification Parameters

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

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

460.3.3.1 Minimum Required Density

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

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

TABLE 460-3 MINIMUM REQUIRED DENSITY^[1]

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

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

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

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

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

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

460.5.2.1 General

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

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

460.5.2.3 Incentive for HMA Pavement Density

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

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

INCENTIVE PAY ADJUSTMENT FOR HMA PAVEMENT DENSITY^[1]

PERCENT LOT DENSITY ABOVE SPECIFIED MINIMUM	PAY ADJUSTMENT PER TON ^[2]
From -0.4 to 1.0 inclusive	\$0
From 1.1 to 1.8 inclusive	\$0.40
More than 1.8	\$0.80

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

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

501.2.6 Fly Ash

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

501.2.6.1 General

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

501.2.6.2 Class C Ash

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

501.2.6.3 Class F Ash

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

502.3.7.8 Floors

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

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

503.3.2.1.1 Tolerances

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

PRESTRESSED CONCRETE I-TYPE GIRDERS

Length of beam..... +/- 1/8" per 10', up to a max of +/- 1 1/2"

Errata

Make the following corrections to the standard specifications:

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:

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

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:

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

Where:

HSBR = Hourly stand-by rate.
 RAF = EquipmentWatch regional adjustment factor.
 ARA = EquipmentWatch age rate adjustment factor.
 R = Current EquipmentWatch monthly rate.

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

109.4.5.5.4 Hourly Outside-Rented Equipment Rate

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

$$\text{HORER} = \text{HRI} + \text{HOC}$$

Where:

HORER = Hourly outside-rented equipment rate

HRI = Hourly rental invoice costs prorated for the actual number of hours that rented equipment is operated solely on force account work

HOC = EquipmentWatch hourly operating cost.

109.2 Scope of Payment

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

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

204.3.2.2.1 General

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

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

657.2.2.1.1 General

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

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

657.2.2.1.4 Poles Designed Under Legacy Standards

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

657.2.2.2 Trombone Arms

Correct errata by changing the reference from 657.2.2.1.3 to 657.2.2.1.2.

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

ADDITIONAL SPECIAL PROVISION 7

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

ADDITIONAL SPECIAL PROVISION 9

Electronic Certified Payroll Submittal

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

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

(2) Ensure that all tiers of subcontractors, as well as all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Tess Mulrooney at 608-267-4489 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator send several sample electronic files to Tess two months before a payroll needs to be submitted. Not every contractor's payroll system is capable of producing export files. For details, see pages 17-22 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at:

<http://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf>

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the 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 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:

<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>
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>

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 September 2004 Letting

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

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

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

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

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

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 103.50 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) the day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, eculid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator **MUST** be paid separately for their driving and for the use of their truck.

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

II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 103.50 of the Wisconsin Statutes.

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous place at the site of work:

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

IV. WAGE RATE REDISTRIBUTION

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

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

V. ADDITIONAL CLASSIFICATIONS

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

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

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

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

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

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

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

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

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

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

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

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Bricklayer, Blocklayer or Stonemason	31.55	18.52	50.07
Carpenter	33.02	17.12	50.14
Future Increase(s): Add \$1.42/hr on 6/1/2016.			
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Cement Finisher	34.16	18.90	53.06
Future Increase(s): Add \$1.75 on 6/1/16.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	29.84	18.20	48.04
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Fence Erector	35.62	0.00	35.62
Ironworker	29.27	23.72	52.99
Line Constructor (Electrical)	40.81	17.79	58.60
Painter	29.87	18.79	48.66
Pavement Marking Operator	30.00	18.27	48.27
Piledriver	30.11	21.09	51.20
Roofer or Waterproofer	30.40	2.23	32.63
Teledata Technician or Installer	22.50	12.74	35.24
Tuckpointer, Caulker or Cleaner	31.55	18.26	49.81
Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	15.92	52.65

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	16.12	48.77
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.09	39.62
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72

TRUCK DRIVERS

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

LABORERS

General Laborer	30.67	15.65	46.32
Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017			
Premium Pay: Add \$.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.20/hr for blaster and powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and grade specialist; Add \$.45/hr for pipelayer. DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	17.50	3.73	21.23
Landscaper	30.67	15.65	46.32
Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	25.65	16.25	41.90
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	19.30	0.00	19.30
Railroad Track Laborer	24.22	15.12	39.34

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
HEAVY EQUIPMENT OPERATORS			
Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx .	38.27	21.85	60.12
Backhoe (Track Type) Having a Mfr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx .	37.77	21.85	59.62
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.	37.27	21.85	59.12

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx .			
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine.	37.01	21.85	58.86
Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx .			
Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oilier; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.	36.72	21.85	58.57
Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx .			
Fiber Optic Cable Equipment.	28.50	0.88	29.38
Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	41.65	21.71	63.36
Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	36.72	21.15	57.87
Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks-Great Lakes ONLY.	36.72	21.15	57.87

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

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

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

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

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

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

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

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Bricklayer, Blocklayer or Stonemason	31.55	18.52	50.07
Carpenter	33.02	17.12	50.14
Future Increase(s): Add \$1.42/hr on 6/1/2016.			
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Cement Finisher	34.16	18.90	53.06
Future Increase(s): Add \$1.75 on 6/1/16.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	29.60	17.13	46.73
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Fence Erector	35.62	0.00	35.62
Ironworker	29.27	23.72	52.99
Line Constructor (Electrical)	40.81	16.95	57.76
Painter	29.87	18.79	48.66
Pavement Marking Operator	30.00	18.27	48.27
Piledriver	30.11	21.09	51.20
Roofer or Waterproofer	30.40	2.23	32.63
Teledata Technician or Installer	22.50	12.74	35.24
Tuckpointer, Caulker or Cleaner	31.55	18.26	49.81
Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	15.92	52.65

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	16.12	48.77
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.09	39.62
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72

TRUCK DRIVERS

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

LABORERS

General Laborer	30.67	15.65	46.32
Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017			
Premium Pay: Add \$.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.20/hr for blaster and powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and grade specialist; Add \$.45/hr for pipelayer. DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	24.92	2.49	27.41
Landscaper	30.67	15.65	46.32
Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	25.65	16.25	41.90
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	16.00	4.31	20.31
Railroad Track Laborer	24.22	15.12	39.34

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
HEAVY EQUIPMENT OPERATORS			
Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx .	38.27	21.85	60.12
Backhoe (Track Type) Having a Mfr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx .	37.77	21.85	59.62
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.	37.27	21.85	59.12

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx .			
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine.	37.01	21.85	58.86
Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx .			
Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oilier; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.	36.72	21.85	58.57
Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevailing-wage-compliance.aspx .			
Fiber Optic Cable Equipment.	28.50	0.88	29.38

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI160010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: October 7, 2016

LABORERS CLASSIFICATION:	Basic Hourly Rates	Fringe Benefits		Basic Hourly Rates	Fringe Benefits
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, Utility Man); Batch Truck Dumper; or Cement Handler; Bituminous Worker; (Dumper, Ironer, Smoother, Tamper); Concrete Handler	\$30.67	16.55	Truck Drivers:		
Group 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	30.77	16.55	1 & 2 Axles	26.63	19.85
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man	30.82	16.55	Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic	26.78	19.85
Group 4: Line and Grade Specialist	31.02	16.55			
Group 5: Blaster and Powderman	30.87	16.55			
Group 6: Flagperson; Traffic Control	27.30	16.55			

CLASSES OF LABORER AND MECHANICS

Bricklayer	31.59	16.39
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	30.86	25.42
Cement Mason/Concrete Finisher	35.07	19.75
Electrician	See Page 3	
Line Construction		
Lineman	42.14	32% + 5.00
Heavy Equipment Operator	40.03	32% + 5.00
Equipment Operator	33.71	32% + 5.00
Heavy Groundman Driver	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	23.18	32% + 5.00
Painters	24.39	11.72
Well Drilling:		
Well Driller	16.52	3.70

Notes: Welders receive rate prescribed for craft performing operation to which welding is incidental. 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 (29 CFR, 5.5(a)(1)(ii)). Includes Modification #0 dated January 8, 2016; Modification #1 dated January 29, 2016; Modification #2 dated February 26, 2016; Modification #3 dated March 11, 2016; Modification #4 dated April 8, 2016; Modification #5 dated June 17, 2016; Modification #6 dated July 1, 2016; Modification #7 dated July 22, 2016; Modification #8 dated July 29, 2016; Modification #9 dated August 19, 2016; Modification #10 dated August 26, 2016; Modification #11 dated September 2, 2016; Modification #12 dated September 30, 2016; Modification #13 dated October 7, 2016.

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI160010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: October 7, 2016

LABORERS CLASSIFICATION:	Basic Hourly Rates	Fringe Benefits		Basic Hourly Rates	Fringe Benefits
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, Utility Man); Batch Truck Dumper; or Cement Handler; Bituminous Worker; (Dumper, Ironer, Smoother, Tamper); Concrete Handler	\$30.67	16.55	Truck Drivers:		
Group 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	30.77	16.55	1 & 2 Axles	26.63	19.85
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man	30.82	16.55	Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic	26.78	19.85
Group 4: Line and Grade Specialist	31.02	16.55			
Group 5: Blaster and Powderman	30.87	16.55			
Group 6: Flagperson; Traffic Control	27.30	16.55			

CLASSES OF LABORER AND MECHANICS

Bricklayer	26.78	12.75
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	30.86	25.42
Cement Mason/Concrete Finisher	35.07	19.75
Electrician	See Page 3	
Line Construction		
Lineman	42.14	32% + 5.00
Heavy Equipment Operator	40.03	32% + 5.00
Equipment Operator	33.71	32% + 5.00
Heavy Groundman Driver	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	23.18	32% + 5.00
Painters	24.39	11.72
Well Drilling:		
Well Driller	16.52	3.70

Notes: Welders receive rate prescribed for craft performing operation to which welding is incidental. 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 (29 CFR, 5.5(a)(1)(ii)). Includes Modification #0 dated January 8, 2016; Modification #1 dated January 29, 2016; Modification #2 dated February 26, 2016; Modification #3 dated March 11, 2016; Modification #4 dated April 8, 2016; Modification #5 dated June 17, 2016; Modification #6 dated July 1, 2016; Modification #7 dated July 22, 2016; Modification #8 dated July 29, 2016; Modification #9 dated August 19, 2016; Modification #10 dated August 26, 2016; Modification #11 dated September 2, 2016; Modification #12 dated September 30, 2016; Modification #13 dated October 7, 2016.

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI160010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: October 7, 2016

<u>POWER EQUIPMENT OPERATORS CLASSIFICATION:</u>	<u>Basic Hourly Rates</u>	<u>Fringe Benefits</u>	<u>POWER EQUIPMENT OPERATORS CLASSIFICATION: (Continued)</u>	<u>Basic Hourly Rates</u>	<u>Fringe Benefits</u>
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	\$39.27	\$21.80	(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 and A-frames; post driver; material hoist operator.	\$38.27	\$21.80
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 jib lengths measuring 175 feet or less, and backhoes (excavators) having a manufacturer's rated capacity of 3 cu. yds. and over, caisson rigs, pile driver, dredge operator, dredge engineer.	\$38.77	\$21.80	Group 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self-propelled; tractor (mounted or towed compactors and light equipment); shouldering machine; self-propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint saw (multiple blade) belting machine; burlap machine; texturing machine; tractor, endloader (rubber tired) - light; jeep digger; fork lift; mulcher; launch operator; fireman; environmental burner.	\$38.01	\$21.80
Group 3: Mechanic or welder - heavy duty equipment, cranes with a lifting capacity of 25 tons or less, concrete breaker (manual or remote); vibrator/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pavement spreader - heavy duty (rubber tired); concrete spreader and distributor, automatic subgrader (concrete); concrete grinder and planing machine; concrete slipform curb and gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi and over); bridge paver; concrete conveyor system; concrete pump; stabilizing mixer (self propelled); shoulder widener; asphalt plant engineer; bituminous paver; bump cutter and grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer and scarifier; backhoes (excavators) having a manufacturers rated capacity of under 3 cu. yds.; grader or motor patrol; tractor			Group 5: Air compressor; power pack; vibratory 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 helper.	\$37.72	\$21.80
			Group 6: Off - road material hauler with or without ejector.....	\$31.82	\$21.80
			Premium Pay: EPA Level "A" protection - \$3.00 per hour EPA Level "B" protection - \$2.00 per hour EPA Level "C" protection - \$1.00 per hours		

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

GENERAL DECISION NUMBER: WI160010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: October 7, 2016

LABORERS CLASSIFICATION:

Rates

Benefits

			Area 4 -	BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE (Wausauke and area south thereof), OCONTO, MENOMINEE (East of a line 6 miles West of the West boundary of Oconto County), SHAWANO (except area North of Townships of Aniwa and Hutchins) COUNTIES.
Electricians				
Area 1	\$30.68	17.28		
Area 2:				
Electricians.....	32.00	19.28	Area 5 -	ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Area North of the town of Wausauke), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Area North of the townships of Aniwa and Hutchins), VILAS AND WOOD COUNTIES
Area 3:				
Electrical contracts under \$130,000	28.96	18.26		
Electrical contracts over \$130,000	31.16	18.34		
Area 4:	30.50	29.50% + 9.57		
Area 5	28.96	24.85% + 9.70		
Area 6	37.02	29%+9.77	Area 6 -	KENOSHA COUNTY
Area 8				
Electricians.....	32.45	26.10% + 10.56	Area 8 -	DODGE, (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington township), ROCK and WALWORTH COUNTIES
Area 9:				
Electricians.....	36.50	20.39		
Area 10	29.64	20.54	Area 9 -	COLUMBIA, DANE, DODGE, (area west of Hwy. 26, except Chester & 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
Area 11	34.92	25.05		
Area 12	34.98	19.89	Area 10 -	CALUMET (Township of New Holstein), DODGE (East of Hwy. 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES
Area 13	36.01	24.00		
Teledata System Installer				
Area 14			Area 11 -	DOUGLAS COUNTY
Installer/Technician	24.35	13.15		
Sound & Communications			Area 12 -	RACINE (except Burlington township) COUNTY
Area 15				
Installer	16.47	14.84	Area 13 -	MILWAUKEE, OZAUKEE, WASHINGTON and WAUKESHA COUNTIES
Technician	26.00	17.70	Area 14 -	Statewide.
Area 1 -			Area 15 -	DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupun), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES.
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 & Springfield), OUTAGAMIE, WAUPACA, WAUSHARA and WINNEBAGO COUNTIES.				
Area 2 -				
ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Mayville, Colby, Unity, Sherman, Fremont, Lynn and Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST. CROIX, SAWYER, TAYLOR, TREMPLEAU, VERNON and WASHBURN COUNTIES				
Area 3 -				
FLORENCE (townships of Aurora, Commonwealth, Fern, Florence and Homestead), MARINETTE (Niagara township)				

FEBRUARY 1999

**NOTICE TO BIDDERS
WAGE RATE DECISION**

The wage rate decision of the Secretary of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Secretary 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. The higher of state or federal rate will apply.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20161213016PROJECT(S):
1130-44-71FEDERAL ID(S):
WISC 2016475

CONTRACTOR : _____

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

SECTION 0001 Contract Items

0010	201.0110 Clearing	606.000 SY	.	.	.	.
0020	201.0210 Grubbing	606.000 SY	.	.	.	.
0030	203.0100 Removing Small Pipe Culverts	11.000 EACH	.	.	.	.
0040	203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 01. 1327+50.60	LUMP	LUMP	.	.	.
0050	204.0100 Removing Pavement	6,750.000 SY	.	.	.	.
0060	204.0105 Removing Pavement Butt Joints	1,333.000 SY	.	.	.	.
0070	204.0115 Removing Asphaltic Surface Butt Joints	130.000 SY	.	.	.	.
0080	204.0120 Removing Asphaltic Surface Milling	304,217.000 SY	.	.	.	.
0090	204.0157 Removing Concrete Barrier	1,526.000 LF	.	.	.	.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20161213016PROJECT(S):
1130-44-71FEDERAL ID(S):
WISC 2016475

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0100	204.0170 Removing Fence	4,398.000 LF	.		.	
0110	204.0180 Removing Delineators and Markers	378.000 EACH	.		.	
0120	204.0190 Removing Surface Drains	2.000 EACH	.		.	
0130	204.0210 Removing Manholes	1.000 EACH	.		.	
0140	204.0270 Abandoning Culvert Pipes	1.000 EACH	.		.	
0150	204.9060.S Removing (item description) 01. Culvert Endwalls	13.000 EACH	.		.	
0160	205.0100 Excavation Common	34,841.000 CY	.		.	
0170	206.1000 Excavation for Structures Bridges (structure) 01. B-05-53	LUMP	LUMP		.	
0180	208.0100 Borrow	18,322.000 CY	.		.	
0190	210.1500 Backfill Structure Type A	280.000 TON	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20161213016PROJECT(S):
1130-44-71FEDERAL ID(S):
WISC 2016475

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0200	211.0100 Prepare Foundation for Asphaltic Paving (project) 01. 1130-44-71	LUMP	LUMP			.
0210	211.0200 Prepare Foundation for Concrete Pavement (project) 01. 1130-44-71	LUMP	LUMP			.
0220	211.0300 Prepare Foundation for Concrete Base (project) 01. 1130-44-71	LUMP	LUMP			.
0230	211.0400 Prepare Foundation for Asphaltic Shoulders	1,226.000 STA	.			.
0240	213.0100 Finishing Roadway (project) 01. 1130-44-71	1.000 EACH	.			.
0250	305.0110 Base Aggregate Dense 3/4-Inch	11,569.000 TON	.			.
0260	305.0120 Base Aggregate Dense 1 1/4-Inch	24,146.000 TON	.			.
0270	305.0500 Shaping Shoulders	964.000 STA	.			.
0280	311.0110 Breaker Run	18,190.000 TON	.			.
0290	312.0110 Select Crushed Material	272.000 TON	.			.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
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WISC 2016475

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0300	350.0104 Subbase	10,688.000 TON	.		.	
0310	390.0403 Base Patching Concrete Shes	1,400.000 SY	.		.	
0320	415.0080 Concrete Pavement 8-Inch	873.000 SY	.		.	
0330	415.0090 Concrete Pavement 9-Inch	406.000 SY	.		.	
0340	415.0120 Concrete Pavement 12-Inch	3,345.000 SY	.		.	
0350	415.0410 Concrete Pavement Approach Slab	160.000 SY	.		.	
0360	415.1110 Concrete Pavement HES 11-Inch	166.000 SY	.		.	
0370	416.0610 Drilled Tie Bars	2,202.000 EACH	.		.	
0380	416.0620 Drilled Dowel Bars	2,232.000 EACH	.		.	
0390	416.1010 Concrete Surface Drains	78.000 CY	.		.	
0400	416.1715 Concrete Pavement Repair SHES	173.000 SY	.		.	

SCHEDULE OF ITEMS

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CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0410	416.1725 Concrete Pavement Replacement SHES	1,225.000 SY	.		.	
0420	440.4410 Incentive IRI Ride	47,140.000 DOL	1.00000		47140.00	
0430	450.4000 HMA Cold Weather Paving	693.000 TON	.		.	
0440	455.0605 Tack Coat	28,006.000 GAL	.		.	
0450	460.2000 Incentive Density HMA Pavement	31,310.000 DOL	1.00000		31310.00	
0460	460.2010 Incentive Air Voids HMA Pavement	69,123.000 DOL	1.00000		69123.00	
0470	460.4110.S Reheating HMA Pavement Longitudinal Joints	177,494.000 LF	.		.	
0480	460.5224 HMA Pavement 4 LT 58-28 S	12,993.000 TON	.		.	
0490	460.7223 HMA Pavement 3 HT 58-28 S	27,002.000 TON	.		.	
0500	460.7224 HMA Pavement 4 HT 58-28 S	29,128.000 TON	.		.	
0510	465.0105 Asphaltic Surface	500.000 TON	.		.	

SCHEDULE OF ITEMS

REVISED:

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0520	465.0125 Asphaltic Surface Temporary	2,100.000 TON	.		.	
0530	465.0400 Asphaltic Shoulder Rumble Strips	191,020.000 LF	.		.	
0540	502.0100 Concrete Masonry Bridges	378.000 CY	.		.	
0550	502.3200 Protective Surface Treatment	1,320.000 SY	.		.	
0560	502.3210 Pigmented Surface Sealer	260.000 SY	.		.	
0570	502.4204 Adhesive Anchors No. 4 Bar	393.000 EACH	.		.	
0580	502.4205 Adhesive Anchors No. 5 Bar	66.000 EACH	.		.	
0590	505.0600 Bar Steel Reinforcement HS Coated Structures	70,760.000 LB	.		.	
0600	505.0800.S Bar Steel Reinforcement HS Stainless Structures	1,690.000 LB	.		.	
0610	505.0906 Bar Couplers No. 6	16.000 EACH	.		.	
0620	505.0908 Bar Couplers No. 8	24.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
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CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0630	506.2610 Bearing Pads Elastomeric Laminated	6.000 EACH	.		.	
0640	509.0301 Preparation Decks Type 1	36.000 SY	.		.	
0650	509.0302 Preparation Decks Type 2	25.000 SY	.		.	
0660	509.1500 Concrete Surface Repair	60.000 SF	.		.	
0670	509.2000 Full-Depth Deck Repair	1.000 SY	.		.	
0680	509.2500 Concrete Masonry Overlay Decks	70.000 CY	.		.	
0690	509.5100.S Polymer Overlay	5,067.000 SY	.		.	
0700	509.9010.S Removing Asphaltic Concrete Deck Overlay (structure) 01. B-05-80	560.000 SY	.		.	
0710	511.1200 Temporary Shoring (structure) 01. B-05-53	240.000 SF	.		.	
0720	516.0500 Rubberized Membrane Waterproofing	31.000 SY	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
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CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0730	517.0900.S Preparation and Coating of Top Flanges (structure) 01. B-05-53	LUMP	LUMP		.	
0740	517.1800.S Structure Repainting Recycled Abrasive (structure) 01. B-05-53	LUMP	LUMP		.	
0750	517.1800.S Structure Repainting Recycled Abrasive (structure) 02. B-05-80	LUMP	LUMP		.	
0760	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 01. B-05-53	LUMP	LUMP		.	
0770	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 02. B-05-80	LUMP	LUMP		.	
0780	517.6001.S Portable Decontamination Facility	2.000 EACH	.		.	
0790	520.4018 Culvert Pipe Temporary 18-Inch	267.000 LF	.		.	
0800	520.8000 Concrete Collars for Pipe	10.000 EACH	.		.	
0810	520.8700 Cleaning Culvert Pipes	26.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20161213016PROJECT(S):
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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0820	520.9700.S Culvert Pipe Liners (size) 01. 30-Inch	172.000 LF	.		.	
0830	520.9700.S Culvert Pipe Liners (size) 02. 36-Inch	73.000 LF	.		.	
0840	520.9750.S Cleaning Culvert Pipes for Liner Verification	3.000 EACH	.		.	
0850	521.0118 Culvert Pipe Corrugated Steel 18-Inch	4.000 LF	.		.	
0860	521.0130 Culvert Pipe Corrugated Steel 30-Inch	7.000 LF	.		.	
0870	521.0136 Culvert Pipe Corrugated Steel 36-Inch	5.000 LF	.		.	
0880	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	2.000 EACH	.		.	
0890	521.1024 Apron Endwalls for Culvert Pipe Steel 24-Inch	2.000 EACH	.		.	
0900	521.1618 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 10 to 1	6.000 EACH	.		.	
0910	522.0115 Culvert Pipe Reinforced Concrete Class III 15-Inch	24.000 LF	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20161213016PROJECT(S):
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WISC 2016475

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0920	522.0118 Culvert Pipe Reinforced Concrete Class III 18-Inch	276.000 LF	.		.	
0930	522.0130 Culvert Pipe Reinforced Concrete Class III 30-Inch	52.000 LF	.		.	
0940	522.0136 Culvert Pipe Reinforced Concrete Class III 36-Inch	21.000 LF	.		.	
0950	522.0324 Culvert Pipe Reinforced Concrete Class IV 24-Inch	756.000 LF	.		.	
0960	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	6.000 EACH	.		.	
0970	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	1.000 EACH	.		.	
0980	523.0414 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	64.000 LF	.		.	
0990	523.0514 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 14x23-Inch	2.000 EACH	.		.	
1000	524.0124 Culvert Pipe Salvaged 24-Inch	68.000 LF	.		.	
1010	603.1256 Concrete Barrier Type S56A	1,481.000 LF	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20161213016PROJECT(S):
1130-44-71FEDERAL ID(S):
WISC 2016475

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1020	603.3513 Concrete Barrier Transition Type S32 to S36	1.000 EACH	.		.	
1030	603.3535 Concrete Barrier Transition Type S36 to S42	1.000 EACH	.		.	
1040	603.3559 Concrete Barrier Transition Type S42 to S56	1.000 EACH	.		.	
1050	603.8000 Concrete Barrier Temporary Precast Delivered	23,489.000 LF	.		.	
1060	603.8125 Concrete Barrier Temporary Precast Installed	24,685.000 LF	.		.	
1070	604.0600 Slope Paving Select Crushed Material	126.000 SY	.		.	
1080	606.0200 Riprap Medium	94.000 CY	.		.	
1090	606.0300 Riprap Heavy	46.000 CY	.		.	
1100	611.0430 Reconstructing Inlets	7.000 EACH	.		.	
1110	611.0545 Manhole Covers Type L	3.000 EACH	.		.	
1120	611.0642 Inlet Covers Type MS	25.000 EACH	.		.	

SCHEDULE OF ITEMS

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CONTRACT:
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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1130	611.0654 Inlet Covers Type V	4.000 EACH	.		.	
1140	611.2004 Manholes 4-FT Diameter	1.000 EACH	.		.	
1150	611.2005 Manholes 5-FT Diameter	2.000 EACH	.		.	
1160	611.2007 Manholes 7-FT Diameter	1.000 EACH	.		.	
1170	611.3901 Inlets Median 1 Grate	1.000 EACH	.		.	
1180	611.3902 Inlets Median 2 Grate	7.000 EACH	.		.	
1190	611.3904 Inlets Median 4 Grate	1.000 EACH	.		.	
1200	612.0206 Pipe Underdrain Unperforated 6-Inch	249.000 LF	.		.	
1210	612.0406 Pipe Underdrain Wrapped 6-Inch	170.000 LF	.		.	
1220	612.0806 Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	6.000 EACH	.		.	
1230	613.1100.S Cable Barrier Type 1	52,516.000 LF	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1240	613.1200.S Cable Barrier End Terminal Type 1	52.000 EACH	.		.	
1250	614.0150 Anchor Assemblies for Steel Plate Beam Guard	2.000 EACH	.		.	
1260	614.0215 Steel Thrie Beam Structure Approach Retrofit Span	8.000 EACH	.		.	
1270	614.0905 Crash Cushions Temporary	7.000 EACH	.		.	
1280	614.0920 Salvaged Rail	11,493.000 LF	.		.	
1290	614.0925 Salvaged Guardrail End Treatments	28.000 EACH	.		.	
1300	614.1000 MGS Guardrail Temporary	852.000 LF	.		.	
1310	614.1100 MGS Guardrail Temporary Thrie Beam Transition	160.000 LF	.		.	
1320	614.1200 MGS Guardrail Temporary Terminal EAT	4.000 EACH	.		.	
1330	614.2300 MGS Guardrail 3	9,561.000 LF	.		.	
1340	614.2500 MGS Thrie Beam Transition	936.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1350	614.2610 MGS Guardrail Terminal EAT	25.000 EACH	.		.	
1360	614.2620 MGS Guardrail Terminal Type 2	7.000 EACH	.		.	
1370	616.0205 Fence Chain Link 5-FT	4,509.000 LF	.		.	
1380	616.0700.S Fence Safety	180.000 LF	.		.	
1390	618.0100 Maintenance And Repair of Haul Roads (project) 01. 1130-44-71	1.000 EACH	.		.	
1400	619.1000 Mobilization	1.000 EACH	.		.	
1410	624.0100 Water	518.000 MGAL	.		.	
1420	625.0100 Topsoil	221,111.000 SY	.		.	
1430	625.0500 Salvaged Topsoil	37,540.000 SY	.		.	
1440	627.0200 Mulching	10,394.000 SY	.		.	
1450	628.1504 Silt Fence	11,775.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1460	628.1520 Silt Fence Maintenance	11,775.000 LF	.		.	
1470	628.1905 Mobilizations Erosion Control	20.000 EACH	.		.	
1480	628.1910 Mobilizations Emergency Erosion Control	7.000 EACH	.		.	
1490	628.2002 Erosion Mat Class I Type A	248,257.000 SY	.		.	
1500	628.7005 Inlet Protection Type A	40.000 EACH	.		.	
1510	628.7504 Temporary Ditch Checks	2,510.000 LF	.		.	
1520	628.7555 Culvert Pipe Checks	105.000 EACH	.		.	
1530	628.7560 Tracking Pads	2.000 EACH	.		.	
1540	629.0210 Fertilizer Type B	163.000 CWT	.		.	
1550	630.0130 Seeding Mixture No. 30	4,564.000 LB	.		.	
1560	630.0200 Seeding Temporary	3,536.000 LB	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1570	633.0100 Delineator Posts Steel	418.000 EACH	.		.	
1580	633.0500 Delineator Reflectors	608.000 EACH	.		.	
1590	633.1000 Delineator Brackets	7.000 EACH	.		.	
1600	633.5200 Markers Culvert End	30.000 EACH	.		.	
1610	634.0614 Posts Wood 4x6-Inch X 14-FT	22.000 EACH	.		.	
1620	634.0616 Posts Wood 4x6-Inch X 16-FT	120.000 EACH	.		.	
1630	634.0618 Posts Wood 4x6-Inch X 18-FT	11.000 EACH	.		.	
1640	635.0200 Sign Supports Structural Steel HS	11,966.000 LB	.		.	
1650	636.0100 Sign Supports Concrete Masonry	36.600 CY	.		.	
1660	636.0500 Sign Supports Steel Reinforcement	1,224.000 LB	.		.	
1670	636.1500 Sign Supports Steel Coated Reinforcement HS	1,980.000 LB	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1680	637.1220 Signs Type I Reflective SH	2,430.000 SF	.		.	
1690	637.2210 Signs Type II Reflective H	1,351.630 SF	.		.	
1700	637.2230 Signs Type II Reflective F	96.000 SF	.		.	
1710	638.2601 Removing Signs Type I	24.000 EACH	.		.	
1720	638.2602 Removing Signs Type II	68.000 EACH	.		.	
1730	638.3000 Removing Small Sign Supports	91.000 EACH	.		.	
1740	638.3100 Removing Structural Steel Sign Supports	28.000 EACH	.		.	
1750	641.1200 Sign Bridge Cantilevered (structure) 01. S-44-136	LUMP	LUMP		.	
1760	641.1200 Sign Bridge Cantilevered (structure) 02. S-44-143	LUMP	LUMP		.	
1770	642.5401 Field Office Type D	1.000 EACH	.		.	
1780	643.0100 Traffic Control (project) 01. 1130-44-71	1.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1790	643.0300 Traffic Control Drums	116,824.000 DAY	.		.	
1800	643.0420 Traffic Control Barricades Type III	4,256.000 DAY	.		.	
1810	643.0705 Traffic Control Warning Lights Type A	8,512.000 DAY	.		.	
1820	643.0715 Traffic Control Warning Lights Type C	4,818.000 DAY	.		.	
1830	643.0800 Traffic Control Arrow Boards	496.000 DAY	.		.	
1840	643.0900 Traffic Control Signs	14,967.000 DAY	.		.	
1850	643.0920 Traffic Control Covering Signs Type II	450.000 EACH	.		.	
1860	643.1000 Traffic Control Signs Fixed Message	264.000 SF	.		.	
1870	643.1050 Traffic Control Signs PCMS	155.000 DAY	.		.	
1880	645.0112 Geotextile Type DF Schedule B	889.000 SY	.		.	
1890	645.0120 Geotextile Type HR	429.000 SY	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1900	645.0140 Geotextile Type SAS	50.000 SY	.		.	
1910	646.0106 Pavement Marking Epoxy 4-Inch	221,946.000 LF	.		.	
1920	646.0600 Removing Pavement Markings	155,420.000 LF	.		.	
1930	646.0805.S Pavement Marking Outfall	156.000 EACH	.		.	
1940	646.0841.S Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	36,189.000 LF	.		.	
1950	646.0843.S Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	9,492.000 LF	.		.	
1960	647.0196 Pavement Marking Arrows Epoxy Type 5	2.000 EACH	.		.	
1970	647.0256 Pavement Marking Symbols Epoxy	3.000 EACH	.		.	
1980	647.0656 Pavement Marking Parking Stall Epoxy	2,215.000 LF	.		.	
1990	647.0706 Pavement Marking Diagonal Epoxy 6-Inch	198.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
2000	647.0803 Pavement Marking Aerial Enforcement Bars Epoxy 24-Inch	108.000 LF	.		.	
2010	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	16,719.000 LF	.		.	
2020	649.0402 Temporary Pavement Marking Paint 4-Inch	150,764.000 LF	.		.	
2030	649.2100 Temporary Raised Pavement Markers Type I	165.000 EACH	.		.	
2040	650.4500 Construction Staking Subgrade	8,897.000 LF	.		.	
2050	650.5000 Construction Staking Base	3,042.000 LF	.		.	
2060	650.6000 Construction Staking Pipe Culverts	16.000 EACH	.		.	
2070	650.7000 Construction Staking Concrete Pavement	5,919.000 LF	.		.	
2080	650.7500 Construction Staking Concrete Barrier	1,535.000 LF	.		.	
2090	650.8000 Construction Staking Resurfacing Reference	26,879.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
2100	650.9910 Construction Staking Supplemental Control (project) 01. 1130-44-71	LUMP	LUMP			.
2110	650.9920 Construction Staking Slope Stakes	96,339.000 LF	.		.	
2120	652.0125 Conduit Rigid Metallic 2-Inch	85.000 LF	.		.	
2130	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	4,730.000 LF	.		.	
2140	652.0605 Conduit Special 2-Inch	1,230.000 LF	.		.	
2150	652.0700.S Install Conduit into Existing Item	1.000 EACH	.		.	
2160	654.0105 Concrete Bases Type 5	4.000 EACH	.		.	
2170	654.0220 Concrete Control Cabinet Bases Type 10	2.000 EACH	.		.	
2180	655.0515 Electrical Wire Traffic Signals 10 AWG	60,705.000 LF	.		.	
2190	655.0525 Electrical Wire Traffic Signals 6 AWG	2,175.000 LF	.		.	
2200	655.0530 Electrical Wire Traffic Signals 4 AWG	1,065.000 LF	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2210	655.0610 Electrical Wire Lighting 12 AWG	2.000 LF	.		.	
2220	655.0615 Electrical Wire Lighting 10 AWG	1,155.000 LF	.		.	
2230	655.0630 Electrical Wire Lighting 4 AWG	9,240.000 LF	.		.	
2240	656.0200 Electrical Service Meter Breaker Pedestal (location) 01. MBJ01	LUMP	LUMP		.	
2250	656.0200 Electrical Service Meter Breaker Pedestal (location) 02. MB4101	LUMP	LUMP		.	
2260	656.0200 Electrical Service Meter Breaker Pedestal (location) 03. MBU01	LUMP	LUMP		.	
2270	656.0200 Electrical Service Meter Breaker Pedestal (location) 04. MBMIN01	LUMP	LUMP		.	
2280	656.0200 Electrical Service Meter Breaker Pedestal (location) 05. MBS01	LUMP	LUMP		.	
2290	656.0200 Electrical Service Meter Breaker Pedestal (location) 06. MBV01	LUMP	LUMP		.	

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			DOLLARS	CTS	DOLLARS	CTS
2300	656.0500 Electrical Service Breaker Disconnect Box (location) 01. CCTV-44-0094	LUMP	LUMP		.	
2310	656.0500 Electrical Service Breaker Disconnect Box (location) 02. CCTV-44-0095	LUMP	LUMP		.	
2320	656.0500 Electrical Service Breaker Disconnect Box (location) 03. CCTV-05-0096	LUMP	LUMP		.	
2330	656.0500 Electrical Service Breaker Disconnect Box (location) 04. CCTV-05-0097	LUMP	LUMP		.	
2340	656.0500 Electrical Service Breaker Disconnect Box (location) 05. CCTV-05-0098	LUMP	LUMP		.	
2350	656.0500 Electrical Service Breaker Disconnect Box (location) 06. CCTV-05-0099	LUMP	LUMP		.	
2360	657.0100 Pedestal Bases	2.000 EACH	.		.	
2370	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	2.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
2380	657.0322 Poles Type 5-Aluminum	2.000 EACH	.		.	
2390	657.0425 Traffic Signal Standards Aluminum 15-FT	2.000 EACH	.		.	
2400	657.0710 Luminaire Arms Truss Type 4 1/2-Inch Clamp 12-FT	2.000 EACH	.		.	
2410	659.1120 Luminaires Utility LED B	4.000 EACH	.		.	
2420	662.2040.S Ramp Closure Gates Solar 40-FT	2.000 EACH	.		.	
2430	670.0100 Field System Integrator	LUMP	LUMP		.	
2440	670.0200 ITS Documentation	LUMP	LUMP		.	
2450	671.0132 Conduit HDPE 3-Duct 2-Inch	53,255.000 LF	.		.	
2460	671.0232 Conduit HDPE Directional Bore 3-Duct 2-Inch	4,825.000 LF	.		.	
2470	671.0300 Fiber Optic Cable Marker	95.000 EACH	.		.	
2480	672.0250 Base Camera Pole 50-FT	6.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
2490	673.0105 Communication Vault Type 1	47.000 EACH	.		.	
2500	673.0225.S Install Pole Mounted Cabinet	6.000 EACH	.		.	
2510	675.0300 Install Mounted Controller Microwave Detector Assembly	6.000 EACH	.		.	
2520	675.0400.S Install Ethernet Switch	6.000 EACH	.		.	
2530	677.0150 Install Camera Pole 50-FT	6.000 EACH	.		.	
2540	677.0200 Install Camera Assembly	6.000 EACH	.		.	
2550	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	1,805.000 LF	.		.	
2560	678.0012 Install Fiber Optic Cable Outdoor Plant 12-CT	710.000 LF	.		.	
2570	678.0072 Install Fiber Optic Cable Outdoor Plant 72-CT	62,055.000 LF	.		.	
2580	678.0300 Fiber Optic Splice	374.000 EACH	.		.	
2590	678.0400 Fiber Optic Termination	36.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
2600	678.0500 Communication System Testing	LUMP	LUMP		.	
2610	690.0150 Sawing Asphalt	948.000 LF	.		.	
2620	690.0250 Sawing Concrete	14,897.000 LF	.		.	
2630	715.0415 Incentive Strength Concrete Pavement	1,388.000 DOL	1.00000		1388.00	
2640	715.0502 Incentive Strength Concrete Structures	2,268.000 DOL	1.00000		2268.00	
2650	ASP.1T0A On-the-Job Training Apprentice at \$5.00/HR	2,100.000 HRS	5.00000		10500.00	
2660	ASP.1T0G On-the-Job Training Graduate at \$5. 00/HR	5,760.000 HRS	5.00000		28800.00	
2670	SPV.0060 Special 01. Salvaged Pipe Underdrain Endwalls	40.000 EACH	.		.	
2680	SPV.0060 Special 02. Ground Rod	6.000 EACH	.		.	
2690	SPV.0060 Special 03. Pull Box Non-Conductive 24x42-Inch	21.000 EACH	.		.	
2700	SPV.0060 Special 04. Install Terminal Server	6.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
2710	SPV.0060 Special 05. Removing Raised Pavement Markers	1,018.000 EACH	.		.	
2720	SPV.0060 Special 06. Resetting Pipe Ends	2.000 EACH	.		.	
2730	SPV.0060 Special 07. Install Scale CMS	2.000 EACH	.		.	
2740	SPV.0060 Special 08. Special Inlets Median 6 Grate	1.000 EACH	.		.	
2750	SPV.0060 Special 09. Cleaning and Painting Bearings	6.000 EACH	.		.	
2760	SPV.0060 Special 10. Hot Mix Asphalt Within Limits (PWL) Test Strip	2.000 EACH	.		.	
2770	SPV.0075 Special 01. Street Sweeping	72.000 HRS	.		.	
2780	SPV.0090 Special 01. Construction Staking Subbase	5,925.000 LF	.		.	
2790	SPV.0090 Special 02. Glare Screens Temporary	1,400.000 LF	.		.	
2800	SPV.0090 Special 03. Concrete Barrier Temporary Precast Anchoring	1,270.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
2810	SPV.0090 Special 04. Temporary Drain Slotted Vane Longitudinal	900.000 LF	.		.	
2820	SPV.0090 Special 05. Longitudinal Asphaltic Joint Repair	9,250.000 LF	.		.	
2830	SPV.0090 Special 06. Televising Storm Sewer and Culvert Pipes	3,302.000 LF	.		.	
2840	SPV.0105 Special 01. Salvage Luminaire and Truss Arm	LUMP	LUMP		.	
2850	SPV.0165 Special 01. Insulation Board Polystyrene 3 1/8-Inch	170.000 SF	.		.	
2860	SPV.0180 Special 01. Concrete Base 12-Inch	5,254.000 SY	.		.	
2870	SPV.0180 Special 02. Concrete Joint Sealing	166.000 SY	.		.	
	SECTION 0001 TOTAL				.	
	TOTAL BID				.	

PLEASE ATTACH SCHEDULE OF ITEMS HERE