HIGHWAY WORK PROPOSAL

Proposal Number: Ø 4

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

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Washington	1100-15-71		Milwaukee - Fond du Lac B-66-0195	USH 41
Washington	1100-38-70	WISC 2015 317	Milwaukee - Fond du Lac Washington Co Ln to USH 41/45 Split Rdwy	USH 41
Washington	1100-47-70	WISC 2015 318	USH 41/45 CTH F (Freidstadt Rd) to STH 167	USH 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, $ 490,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: June 9, 2015 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time October 15, 2016	
Assigned Disadvantaged Business Enterprise Goal 12 %	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 Milling, concrete base patching, HMA overlay, base aggregate dense, box culvert replacement, median cable guard system, pavement markings, permanent signing, signals, and fiber optic.	
Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with June 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:

Use the following link prior to June 19, 2015:
http://roadwaystandards.dot.wi.gov/hcci/

Use the following link beginning June 19, 2015:
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:

Use the following link prior to June 19, 2015:
http://roadwaystandards.dot.wi.gov/hcci/

Use the following link beginning June 19, 2015:
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.

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

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

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

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

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

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

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

Use the following link prior to June 19, 2015:
http://roadwaystandards.dot.wi.gov/hcci/

Use the following link beginning June 19, 2015:
http://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

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

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

Bidder

Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

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

C Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1100-15-71, Milwaukee to Fond du Lac, B-66-0195, USH 41, Washington County, Wisconsin; Project 1100-38-70, Milwaukee to Fond du Lac, Washington County Line to USH 41/45 Split Roadway, USH 41, Washington County, Wisconsin; Project 1100-47-70, USH 41/45, CTH F (Freidstadt Rd) to STH 167, USH 41, Washington County, Wisconsin; and 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, 2015 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 (20141107)

2. Scope of Work.

1100-38-70
The work under this contract shall consist of Excavation Common, Base Aggregate Dense, Concrete Pavement Repair SHES, Concrete Pavement Replacement SHES, Removing Asphaltic Surface Milling, HMA Pavement, Traffic Signals, Fiber Optic and Camera, High Tension Cable Guard, Landscaping, Permanent Signing, Pavement Marking and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

1100-47-70
The work under this contract shall consist of Resin High Friction Surface Treatment, Pavement Marking, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

1100-15-71
The work under this contract shall consist of Excavation Common, Base Aggregate Dense, HMA Pavement, Concrete Pavement Replacement SHES, Box Culvert Replacement, MGS Guardrail, 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.

Work may begin on August 1, 2015 or earlier depending on the completion of project 1100-03-71 Menomonee River Bridges, and as agreed upon by the project manager. All existing traffic control on project 1100-03-71 is required to be removed prior to the start of work.

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

A winter shutdown of the project will be in effect from noon Wednesday, December 23, 2015 to 6:00 AM Monday, March 28, 2016. Work on ramps and sideroads not impacting mainline traffic will be permitted to continue upon approval by the engineer. The contractor may request a revision in the shutdown date in writing to the engineer.

As part of the winter shutdown, all traffic control drums, barricades, and other items as directed by the engineer shall be removed from the mainline and shoulders of USH 41/45.

Place a PCMS 14 days prior to the start of work to alert the traveling public for the upcoming work and lane closures at the box culvert on USH 45 southbound. PCMS to be located north of the off ramp at Pioneer Road. Once the work begins the PCMS shall be moved north of STH 60 off ramp. Coordinate with the engineer for the exact message to display.

No extra cost will be allowed for "cold weather protection" for any concrete item, if needed.

If signs located within the grading limits must be moved, they will be paid for under the Removing Signs, Removing Small Sign Supports, and the Traffic Control Signs bid items as directed by the engineer. These signs must be erected the same day they are taken down.

Temporary signals must be in operation prior to removing the existing signals.

Contractor Coordination
Coordinate and hold prosecution and progress meetings once per week. Attend weekly scheduling meetings to discuss the near term schedule activities, address any long-term schedule issues, and discuss any relevant technical issues. Develop a rolling three-week

schedule identifying the previous week worked and a two week “look ahead”. Provide sufficient detail to include actual and planned activities and all the subcontractors for offsite and construction activities, addressing all activities including ramp and lane closure schedules to be performed and identifying issues requiring engineering action or input. Submit plans for all traffic control for review by the engineer and approval a minimum of one week prior to implementation. In addition to department representatives, invite local municipality representatives from the Village of Germantown, Village of Richfield and Village of Menomonee Falls to attend the prosecution and progress meetings and any utility companies that have interests within the work zone. Agenda items at the meetings will include review of the contractor’s and subcontractor’s schedule and evaluation of progress and pay items.

Interim Completion Date
Complete the concrete pavement repair SHES, concrete pavement replacement SHES, and outside shoulder improvements as shown in the plans to the USH 41/45 southbound mainline prior to 12:01 AM September 15, 2015.

If the contractor fails to complete the concrete pavement repair SHES, concrete pavement replacement SHES, and outside shoulder improvements as shown in the plans to the USH 41/45 southbound mainline prior to 12:01 AM on Tuesday September 15, 2015, the department will assess the contractor $5,000 in interim liquidated damages for each calendar day that this work remains incomplete after 12:01 AM September 15, 2015. An entire calendar day will be charged for any period of time within a calendar day that this work remains incomplete beyond 12:01 AM.

The box culvert bridge replacement between Station 679+50 and Station 681+88 shall be staged as shown in the plans and shall have stages 1, 2, and 3 completed prior to 12:01 AM Monday, November 2, 2015. Once construction activities begin, all work shown in stages 1, 2, and 3 of I.D. 1100-15-71 must be completed within 30 calendar days.

If the contractor fails to complete the work necessary to reopen all southbound lanes of USH 41/45 from Station 679+50 and Station 681+88 to through traffic prior to 12:01 AM November 2, 2015, and within 30 calendar days of beginning construction, the department will assess the contractor $5,000 in interim liquidated damages for each calendar day that the southbound USH 41/45 mainline remains closed after 12:01 AM November 2, 2015 or beyond 30 calendar days, whichever comes first. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

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

Schedule of Operations
The schedule of operations shall conform to the requirements described below, unless modifications are approved in writing by the engineer.

All of the southbound USH 41/45 work listed in Stages 1A and 1B must be completed prior to starting Stage 1 of I.D. 1100-15-71. No work will be permitted on southbound USH 41/45 for the duration of 1100-15-71.

Anticipated Stages:

1100-38-70:

Stage 1A

- CTH Q – Remove safety island and construct temporary HMA pavement and temporary signals as shown in plans. Construct ramp widening up to the lower layer of HMA pavement.
- USH 41/45 Mainline – Construct and complete all outside shoulder widening, slope paving under the existing structures, concrete pavement repair SHES on ramps and outside lanes (lane #3), milling existing HMA pavement on outside shoulders and outside lanes (lane #3), and pave HMA pavement up to the lower layer on ramps and outside shoulders, outside lanes (lane #3), and implement USH 41/45 Traffic Control.
- Holy Hill Road – Construct ramp widening up to the lower layer of HMA pavement as shown in the traffic control plans.
- Lannon Road – Remove existing concrete curb and gutter and complete all work at the median island.

Stage 1B

- USH 41/45 Mainline – Complete the concrete pavement repair SHES and concrete pavement replacement SHES in lanes 1 and 2 (inside and middle lanes).
- Lannon Road – Remove existing safety islands and construct temporary HMA pavement as shown in plans. Construct ramp widening up to the lower layer of HMA pavement.

All work listed in Stage 1A for the mainline must be completed in the northbound or southbound direction before any mainline work for Stage 1B can begin in that same direction.

Stage 2A

- USH 41/45 Mainline – Construct and complete all inside shoulder widening, high tension cable guard, concrete pavement repair SHES on middle lanes, inside lanes, and complete all HMA pavement up to the upper layer.

Stage 2B

- CTH Q – Remove temporary pavement and construct safety island as shown in plans. Pave upper layer of HMA pavement.
- Lannon Road – Remove temporary pavement and construct safety islands as shown in plans. Pave upper layer of HMA pavement.
- Holy Hill Road – Pave upper layer of HMA pavement of all 4 ramps.
- USH 41/45 Mainline – Pave HMA pavement upper layer, install permanent pavement marking, permanent signing, and Resin High Friction Surface Treatment (See I.D. 1100-47-70).

Traffic Control for Stage 2B from Station 574+45 to Station 613+00 may be in place while work in stage 2A at other locations are still under construction.

1100-47-70:

See USH 41/45 Mainline Stage 2B above. Place Resin Binder High Friction Surface Treatment on the USH 41/45 mainline.

1100-15-71:

Prior to starting Stage 1, all mainline work in Stage 1A and 1B of I.D. 1100-38-70 must be completed.

Stage 1

- Widen the asphalt shoulders on southbound USH 41/45 from Station 684+00 to 688+00. Work performed during times shown below for single and double lane closures.

Stage 2

- Construct the western half of B-66-0195 as detailed in the plan

Stage 3

- Construct the eastern half of B-66-0195 as detailed in the plan

Stage 4

- Build the east and west wings of B-66-0195 as detailed in the plan.

Advance Notification

Notify the engineer and WisDOT SE Region Work Zone Engineer, (262) 548-6730, if there are any changes in the schedule, early completions, or cancellations of scheduled work. Coordinate the locations of messages of portable changeable message signs with the engineer and WisDOT STOC, (414) 227-2142.

Provide the engineer with a schedule of lane and ramp closures for the following week by noon on Wednesday of the previous week. In addition, provide the following minimum advance notification to the engineer for incorporation into the Wisconsin Lane Closure System.

Lane Closures	3 business days
Full Freeway Closures	14 calendar days
Construction Stage Changes	14 calendar days
Ramp Closures	7 calendar days
Lane Restrictions (OSOW)	14 calendar days

Definitions – Freeway Work Restrictions
The following definitions apply to this contract for freeway work restrictions:

All three lanes of USH 41/45 freeway shall be open to traffic:

USH 41/45 Northbound Lanes:
2:00 PM – 7:30 PM Monday, Tuesday, Wednesday and Thursday
1:00 PM – 7:30 PM Friday

USH 41/45 Southbound Lanes:
4:00 PM – 8:00 PM Sunday
6:00 AM – 9:30 AM Monday, Tuesday, Wednesday, Thursday and Friday

At least two lanes of USH 41/45 freeway shall be open to traffic:

USH 41/45 Northbound Lanes:

- 12:00 AM Sunday – 2:00 PM Monday
- 7:30 PM Monday – 2:00 PM Tuesday
- 7:30 PM Tuesday – 2:00 PM Wednesday
- 7:30 PM Wednesday – 2:00 PM Thursday
- 7:30 PM Thursday – 1:00 PM Friday
- 7:30 PM Friday – 12:00 AM Sunday

USH 41/45 Southbound Lanes:

- 8:00 PM Sunday – 6:00 AM Monday
- 9:30 AM Monday – 6:00 AM Tuesday
- 9:30 AM Tuesday – 6:00 AM Wednesday
- 9:30 AM Wednesday – 6:00 AM Thursday
- 9:30 AM Thursday – 6:00 AM Friday
- 9:30 AM Friday – 4:00 PM Sunday

At least one lane of USH 41/45 freeway shall be open to traffic:

USH 41/45 Northbound Lanes:

- 7:00 PM Sunday – 6:00 AM Monday
- 8:30 PM Monday – 6:00 AM Tuesday
- 8:30 PM Tuesday – 6:00 AM Wednesday
- 8:30 PM Wednesday – 6:00 AM Thursday
- 8:30 PM Thursday – 6:00 AM Friday
- 8:30 PM Friday – 8:00 AM Saturday
- 8:00 PM Saturday – 9:00 AM Sunday

USH 41/45 Southbound Lanes:

- 8:00 PM Sunday – 5:00 AM Monday
- 7:30 PM Monday – 5:00 AM Tuesday
- 7:30 PM Tuesday – 5:00 AM Wednesday
- 7:30 PM Wednesday – 5:00 AM Thursday
- 7:30 PM Thursday – 5:00 AM Friday
- 8:00 PM Friday – 8:00 AM Saturday
- 8:00 PM Saturday – 9:00 AM Sunday

Ramp Closures
Ramp closures will be required to complete this work. These closures will only be allowed during those times where the mainline traffic can be reduced to one lane as shown above in the Freeway Work Restrictions. No two consecutive ramps are allowed to be closed at one time. These closures are intended only for the milling and paving operations on each ramp.

Events
Heavy traffic is anticipated for events such as all home Brewers and Packers games, the Wisconsin State Fair, Summerfest, etc. At the discretion of the engineer, the Freeway Work Restrictions listed above may be revised to accommodate these events.

All Work Restrictions
When engaged in roadway cleaning operations, use equipment having vacuum or water spray mechanisms to eliminate the dispersion of particulate matter into the atmosphere. If vacuum equipment is employed, it must have suitable self-contained particulate collectors to prevent discharge from the collection bin into the atmosphere.

Excavation material shall be stockpiled on upland areas an adequate distance away from wetlands, storm sewer inlets, floodplains, and the waterways as determined by engineer.

4. Traffic

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

General
Construct the project using the traffic control details shown in the plans and standard detail drawings.

Freeway Work Restrictions
All lanes of the freeway shall be entirely clear and open to traffic at all times except for approved off-peak hour closures as approved by the engineer. No part of a traffic control device shall be within a live traffic lane. Lane closures shall be in accordance to the standard detail drawings (SDD) and have the approval of the engineer and the Regional Work Zone Engineer.

The contractor shall not store materials, traffic control devices, or equipment within the clear zone without the approval of the engineer.

Advance Notification
Provide the engineer with a schedule of lane and ramp closures for the following week by noon on Wednesday of the previous week. In addition, provide the following minimum of 24 hours in advance notification to the engineer for incorporation into the Wisconsin Lane Closure System.

5. Lane Rental Fee Assessment.

A General
The contract designates some lane closures to perform the work. 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 contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the designated times of lane closures. The contractor will not incur a Lane Rental Fee Assessment for closure of lanes during the designated times of lane closures.

Refer to the Prosecution and Progress article and Holiday Work Restrictions article for designated lane closure times.

The contractor shall submit the dates of the proposed lane, ramp, and roadway restrictions to the engineer as part of the progress schedule. The contractor will coordinate lane, ramp, and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project.

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

A.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:

List lane rental fees $500.00 per lane per 15 minutes

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.

6. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying USH 41/45 traffic, CTH Q (County Line Rd) traffic, STH 167 (Lannon Rd and Holy Hill Rd) traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From noon Friday September 4, 2015 to 6:00 AM Tuesday September 8, 2015 for Labor Day;
- Northbound – From 2:00 PM Thursday, November 19, 2015 to noon Saturday, November 21, 2015 for opening weekend of hunting season. Operations between this restriction and the Thanksgiving holiday work restriction must be approved by the engineer.
- From noon Wednesday, November 25, 2015 to 6:00 AM Monday, November 30, 2015 for Thanksgiving;
- From noon Wednesday, December 23, 2015 to 6:00 AM Monday, January 4, 2016 for Christmas and New Year's Day;
- From noon Friday, May 27, 2016 to 6:00 AM Tuesday, May 31, 2016 for Memorial Day;
- From noon Friday, July 1, 2016 to 6:00 AM Tuesday, July 5, 2016 for Independence Day;
- From noon Friday, September 2, 2016 to 6:00 AM Tuesday, September 6, 2016 for Labor Day.

107-005 (20050502)

7. Utilities.

This contract comes under the provision of Administrative Rule Trans 220.
107-SER8 (20101021)

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

Contact utility companies listed in the plans prior to preparing bids to obtain current information on existing utility locations and the status of any new utility relocation work.

Utility companies may be performing utility work and adjustments within the limits and throughout the life of the project. Cooperate and coordinate construction activities with these companies.

Some utility work, as described below, is dependent on prior work being performed by the contractor at a specific site. Provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Notice shall be given 10 working days in advance of when the site will be available to the utility. Follow up with a confirmation notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.

There may be abandoned utility facilities within the project limits. If a conflict with an abandoned utility facility is encountered, contact the appropriate utility owner/representative to coordinate construction activities and any removal, if necessary.

Utility working days shown herein are as defined in Wisconsin Administrative Code Chapter Trans 220.

Known utilities in the projects are as follows:

ANR Pipeline Co has two high pressure natural gas pipelines (NPS 14” and 20”) that cross the project at three different locations that are listed below. Contact ANR prior to work in these areas to ensure proper pipeline clearances and guidelines are met.

Station 833+60 Lannon Road	No adjustments required.
Station 1460+50 SB Off Ramp at Lannon Rd	No adjustments required as long as a minimum 18 inches of clearance is obtained between the pipelines and the 3-2” HDPE conduits. Contact ANR Pipeline Co for specific construction procedures near the pipeline.
Station 462+25 USH 41/45	No adjustments required. High tension cable guard posts will require a five

foot clearance from the pipeline. For EBS operations contact ANR Pipeline Co for specific construction procedures near the pipeline.

The field contact is Matt Golla and he can be reached by phone at (920) 375-0465.

AT&T Wisconsin has underground facilities within the project limits, but does not anticipate any conflicts.

The field contact is Rick Podolak and he can be reached by phone at (715) 839-5565.

ATC Management, Inc. has overhead facilities within the project area. Existing facility locations are as follows:

Existing overhead facilities occur at Station 847+75 Lannon Road and Station 454+10 NB On Ramp at Lannon Road. The overhead line is anticipated to remain in place. The existing overhead 345 kV facilities are anticipated to be energized during construction. Use caution when operating around ATC foundations. See the "Notice to Contractor" section of the Special Provisions for information on requesting a line outage of ATC's 345 kV facilities.

Contact ATC Management, Inc. for information to assist in assessing OSHA clearance requirements during construction. If taking a line out of service is required to complete construction, it would be at the contractors cost and would require a minimum of 4 months advance notice and could be a longer lead time depending on the time of year and other planned system outages.

Contact ATC 10 business days prior to working near ATC facilities. Coordinate operations with ATC. The field contact is Alex Metz and he can be reached by phone at (608) 877-7105 or by email at ametz@atcllc.com.

Contact ATC operations at (866) 899-3204 a minimum of 10 business days prior to work occurring within 50 feet horizontally or vertically of the ATC 345 kV line. Follow all OSHA and ATC requirements when working around the 345 kV facilities.

Line outages for ATC's 345 kV overhead line may be requested. ATC line outages will be limited to those work activities that cannot be completed without encroaching on OSHA clearance requirements. Submit a work plan to the engineer and ATC indicating the activities that cannot be completed without encroaching on OSHA clearance requirements. Requests for line outages must be made a minimum of four months in advance of the requested outage date. The maximum duration of any line outage is seven consecutive calendar days. Additional line outages may be requested for work prior to June 1 and after October 1. Line outage requests may not be granted by ATC and the work should not be bid anticipating line outages will be granted. If a line outage is granted by ATC, schedule work to minimize the duration of the outage and comply with all ATC requirements for

outage coordination prior to the start of work activities and upon completion of work activities. If taking a line out of service is required to complete construction, it would be at the contractors cost.

Work near ATC's 345 kV Overhead Electric Line
WisDOT is aware of possible induced voltage from the 345kV overhead electric line on metal objects. WisDOT's staff is utilizing personal protective equipment (PPE) in the form of insulated gloves when inspecting or working on metal objects in the vicinity of the line. Please use PPE in accordance with your company policy's, OSHA requirements, and ATC requirements when working around these overhead lines.

For questions about working around ATC's 345 kV overhead lines contact ATC operations at (866) 899-3204 a minimum of 10 business days prior to work occurring within 50 feet horizontally or vertically of the ATC 345 kV line.

PAETEC Business Services Inc. has underground facilities within the project limits, but does not anticipate any conflicts.

The field contact is Jim Kostuch and he can be reached by phone at (262) 792-7938.

Time Warner Cable has underground facilities within the project limits, but does not anticipate any conflicts.

The field contact is Steve Cramer and he can be reached by phone at (414) 277-4045.

The Village of Germantown has a 16" diameter water main within the project limits at the locations below.

Station 1444+80 NB Off Ramp Lannon Rd	No adjustment required.
Station 444+80 USH 41/45	No adjustment required.
Station 1444+90 SB On Ramp Lannon Rd	No adjustment required.
Station 1444+90 to 1452+00 LT Ramp 'D' Lannon Rd	No adjustment required.

The field contact is Daniel Ludwig and he can be reached by phone at (414) 745-4925.

The Village of Menomonee Falls has underground facilities within the project limits, but does not anticipate any conflicts.

The field contact is Jeff Nettesheim and he can be reached by phone at (262) 532-4848.

We Energies – Electric has underground facilities within the project limits that cross between the Menomonee River Bridge and the Maple Road overpass.

Station 429+60 USH 41/45	No adjustments required.

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

We Energies Electric Dispatch, (800) 662-4797

The field contact is Al Schmitt and he can be reached by phone at (262) 338-7662 or by email at alan.schmitt@we-energies.com.

We Energies – Gas has four gas main crossings under the roadway at the locations listed below:

Station 383+75 USH 41/45	No adjustment required.
Station 512+25 USH 41/45	No adjustment required.
Station 562+25 USH 41/45	No adjustment required.
Station 673+10 USH 41/45	No adjustment required.

We Energies Gas Dispatch, (800) 261-5325

The field contact is Dennis Sinjakovic and he can be reached by phone at (414) 540-5715 or by email at dennis.sinjakovic@we-energies.com.

WisDOT SE Region Traffic Signals has underground facilities within the project limits.

WisDOT SE Region owns and maintains traffic signals at the ramp terminal intersections at Washington County Line Road and Lannon Road. Signal work at these intersections shall be completed according to the plans and special provisions.

The field contact is Elizabeth Lloyd-Weis and she can be reached by phone at (262) 521-4404.

WisDOT SE Region STOC has underground and overhead facilities within the project limits.

WisDOT SE Region owns and maintains FTMS equipment within the project limits. As part of this contract, the contractor shall remove existing facilities and install new items, including conduit, and re-install existing facilities or install new facilities into the new items as shown in the plans and described in these special provisions. WisDOT will be providing some of the

items to be installed. The contractor shall coordinate with the WisDOT State Traffic Operation Center to obtain these items.

The field contact is Jeff Madson and he can be reached by phone at (414) 225-3723.

8. Other Contracts.

I.D. 1100-37-70 – Pilgrim Road Interchange
The work under this contract began in April of 2015 and includes two new structures over USH 41/45, new ramps and incidental work on Pilgrim Road. During the bridge demolitions and setting of girders, USH 41/45 will be closed and detoured. The proposed detour route is Main Street in Menomonee Falls and/or CTH Q. Coordinate work zone traffic control and staging on the CTH Q ramps to remain open during this time. Contact Project Manager, Ken Kiepczynsky at (414)349-3748.

Future Let Projects Utilizing Area Detours

I.D. 1000-44-73 – STH 167 Holy Hill Road
The work under this contract includes mill, overlay and shoulder improvements on STH 167 (Holy Hill Road) from the SB ramps of USH 41/45 going east to 48th Street. Work to be completed by July 1, 2016 to avoid detour conflicts. Work includes ramp closures with detours. The proposed detour route is USH 41 to CTH Y (Lannon Road) to STH 167. Contact Project Manager, Tony Minto at (414) 254-0816.

I.D. 3360-09-70 – STH 175 Menomonee Falls – Slinger Road
The work under this contract includes the reconstruction of STH 175 from Beechwood Industrial Court to Polk Street, approximately 2.06 miles. Work will include STH 175 closed in three stages with detours. Construction to begin early March 2016 with a completion date of December 2016. Contact Project Manager, John Kanzenbach at (262) 548-6467.

Detours:
Stage 1: STH 175 closed from STH 167 (Holy Hill Road) north to Polk Street. Detour route is STH 167 to USH 41 to STH 60.

Stage 2C: STH 175 closed at the intersection of STH 167 (Holy Hill Road) and STH 175. Detour route is USH 41 to STH 60 to STH 164. Stage 1 detour will still be utilized. Duration approximately 15 days to complete construction of the roundabout.

Stage 3: STH 175 closed from STH 167 (Holy Hill Road) south to Beechwood Industrial Court. Detour route is CTH Y to USH 41 to STH 167.

9. Railroad Insurance and Coordination.

A Description
Comply with standard spec 107.17 for all work affecting Wisconsin & Southern Railroad LLC.

A.1 Railroad Insurance Requirements
In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3. Insurance is filed in the name of Wisconsin & Southern Railroad LLC.

Notify evidence of the required coverage, and duration to Roger Schaalma, Road Master, Wisconsin and Southern Railroad LLC, 1890 East Johnson Street, Madison, WI 53704, TELEPHONE (608) 620-2044, FAX 608-243-9225, email rschaalma@watcocompanies.com. Include the following information on the insurance document:

Project: 1100-47-70
Route Name: USH 41, Washington County
Crossing ID: 386 894G
Railroad Subdivision: Milwaukee Subdivision
Railroad Milepost: 109.35

A.2 Work by Railroad
The railroad will perform the work described in this section, except for work described in other special provisions and will be accomplished without cost to the contractor. None

A.3 Names and addresses of Railroad Representatives for Consultation and Coordination
Contact: Roger Schaalma, Road Master, 1890 E Johnson Street, Madison, WI 54704, TELEPHONE (608) 620-2044, email rschaalma@watcocompanies.com. for consultation on railroad requirements during construction.

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

A.4 Temporary Grade Crossing
If a temporary grade crossing is desired, submit a written request to the railroad representative named in A.3 several weeks prior to the time needed. Approval is subject to the discretion of the railroad. The department has made no arrangements for a temporary grade crossing.

A.5 Train Operation
Approximately 12 through freight trains operate daily through the construction site. Through freight trains operate at up to 25 mph. In addition to through movements, there are switching movements at slower speeds.

10. Erosion Control.

Append standard spec 107.20 with the following:

Do not implement the contractor's Erosion Control Implementation Plan (ECIP) until the ECIP has been granted approval from the department. Provide the ECIP 14 days prior to the pre-construction conference. Provide 1 copy of the ECIP to the department and one copy of the ECIP to the WDNR Liaison, Kristina Betzold, (414) 507-4946, Kristina.betzold@wisconsin.gov. Do not implement the ECIP until department approval, and perform all work in accordance to the approved ECIP.

Prepare and submit an ECIP for the project including borrow sites, material disposal sites, dust control, and each dewatering (mechanical pumping) operation in accordance to Chapter TRANS 401, Wisconsin Administrative Code, and standard spec 107.20 requirements. The ECIP shall supplement information shown on the plans and not reproduce it. The ECIP will identify how to implement the project's erosion control plan. Prepare the ECIP submittal in accordance to WisDOT Construction and Materials Manual (CMM), Chapter 6-45, Erosion Control and provide information enumerated in department worksheet, WS1073. ECIP shall demonstrate timely and diligently staged operations, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-application of top soil to minimize the period of exposure to possible erosion.

Pursue operations in a timely and diligent manner, continuing all construction operations methodically from the initial topsoil stripping operation through the subsequent grading and re-topsoiling to minimize the period of exposure to possible erosion.

Stockpile excess materials or spoils on upland areas away from wetlands, floodplains, and waterways. Immediately install perimeter silt fence protection around stockpiles. If stockpiled materials will be left for more than 14 days, install temporary seed or other temporary erosion control measures the engineer orders.

Do not place any fills in waterways or wetlands for work pads.

Re-topsoil graded areas, as designated by the engineer, immediately after grading is completed within those areas. Landscape all topsoiled areas as the plan shows or as directed by the engineer within five calendar days after placement of topsoil. If graded areas are left not completed and exposed for more than 14 days, seed those areas with temporary seed.

Erosion control BMP's shown on the plans are at suggested locations. The actual locations will be determined by the contractor's ECIP and by the engineer.

Maintain Erosion Control BMP's until permanent vegetation is established or until the engineer determines that the BMP is no longer required.

If dewatering is required, refer to the article Maintaining Drainage During Construction, Item SPV.0105.08.

11. Removing Partial Small Pipe Culverts, Item 204.9060.S.01.

A Description
This special provision describes Removing Partial Small Pipe Culverts in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction
Remove the existing apron endwalls for culvert pipe reinforced concrete and/or a section of the existing culvert pipe reinforced concrete as shown in the plans or as directed by the engineer. If only a portion of a section of the existing culvert pipe reinforced concrete shall be removed, then a smooth clean cut sawing perpendicular to the existing pipe is required. Avoid damaging or moving the existing culvert pipe to be remained. Repair any damages to the existing culvert pipe and re-set the pipe to its true position prior to the installation of the proposed pipe extension and concrete collar.

D Measurement
The department will measure Removing Partial Small Pipe Culverts as each individual unit, acceptably removed.

E Payment
Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01	Removing Partial Small Pipe Culverts	Each

Payment is full compensation for furnishing all excavating, sawing, removing and disposing of the existing apron endwalls for culvert pipe and/or portion of the existing culvert pipe; for repairing and setting the existing pipe to be remained in place in its true position. Culvert pipe concrete collar, culvert pipe reinforced concrete, and apron endwalls for culvert pipe reinforced concrete will be measured and paid for under the pertinent items provided in the contract.
204-025 (20041005)

12. Removing Cable Guard Terminals, Item 204.9060.S.02.

A Description
This special provision describes removing Cable Guard Terminals in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Removing Cable Guard Terminals as each individual unit, acceptably removed.

E Payment
Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.02	Removing Cable Guard Terminals	Each

204-025 (20041005)

13. Removing Cable Guard 3-Strands, Item 204.9090.S.01.

A Description
This special provision describes removing cable guard in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Removing Cable Guard 3-Strands by the linear foot, acceptably removed.

E Payment
Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.01	Removing Cable Guard 3-Strands	LF

204-025 (20041005)

14. 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://roadwaystandards.dot.wi.gov/standards/cmm/index.htm

A.2 Contractor Testing for Small Quantities

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

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

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

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

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

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

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

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

B Materials

B.1 Quality Control Plan

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

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

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

B.2 Personnel

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

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

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

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

B.3 Laboratory

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

Materials Management Section
3502 Kinsman Blvd.
Madison, WI 53704
Telephone: (608) 246-5388
http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm

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 2 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 (20100709)

15. QMP HMA Pavement Nuclear Density.

A Description

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

(1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 as modified in this special provision.

(2) Provide and maintain a quality control program defined as all activities and documentation of the following:

1. Selection of test sites.
2. Testing.
3. Necessary adjustments in the process.
4. Process control inspection.

(3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures. Obtain the CMM from the department's web site at:

http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm

(4) The department's Materials Reporting System (MRS) software allows contractors to submit data to the department electronically, estimate pay adjustments, and print selected reports. Qualified personnel may obtain MRS software from the department's web site at:

http://www.atwoodsystems.com/mrs

B Materials

B.1 Personnel

(1) Perform HMA pavement density (QC, QV) testing using a HTCP certified nuclear technician I, or a nuclear assistant certified technician (ACT-NUC) working under a certified technician.

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

B.2 Testing

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

B.3 Equipment

B.3.1 General

(1) Furnish nuclear gauges from the department's approved product list at http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm.

(2) Have the gauge calibrated by the manufacturer or an approved calibration service within 12 months of its use on the project. Retain a copy of the manufacturer's calibration certificate with the gauge.

(3) Prior to each construction season, and following any calibration of the gauge, the contractor must perform calibration verification for each gauge using the reference blocks located in the department's central office materials laboratory. To obtain information or schedule a time to perform calibration verification, contact the department's Radiation Safety Officer at:

Materials Management Section
3502 Kinsman Blvd.
Madison, Wisconsin 53704
Telephone: (608) 243-5998

B.3.2 Correlation of Nuclear Gauges

B.3.2.1 Correlation of QC and QV Nuclear Gauges

(1) Select a representative section of the compacted pavement prior to or on the first day of paving for the correlation process. The section does not have to be the same mix design.

(2) Correlate the 2 or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the correlation on 5 test sites jointly located. Record each density measurement of each test site for the QC, QV and back up gauges.

(3) Calculate the average of the difference in density of the 5 test sites between the QC and QV gauges. Locate an additional 5 test sites if the average difference exceeds 1.0 lb/ft^3. Measure and record the density on the 5 additional test sites for each gauge.

(4) Calculate the average of the difference in density of the 10 test sites between the QC and QV gauges. Replace one or both gauges if the average difference of the 10 tests exceeds 1.0 lb/ft^3 and repeat correlation process from B.3.2.1 (2).

(5) Furnish one of the QC gauges passing the allowable correlation tolerances to perform density testing on the project.

B.3.2.2 Correlation Monitoring

(1) After performing the gauge correlation specified in B.3.2.1, establish a project reference site approved by the department. Clearly mark a flat surface of concrete or asphalt or other material that will not be disturbed during the duration of the project. Perform correlation monitoring of the QC, QV, and all back-up gauges at the project reference site.

(2) Conduct an initial 10 density tests with each gauge on the project reference site and calculate the average value for each gauge to establish the gauge's reference value. Use the gauge's reference value as a control to monitor the calibration of the gauge for the duration of the project.

(3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft^3 of its reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft^3 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 sublot of the lane. If a resulting partial quantity at the end of the project is 750 lane feet or more, create a separate sublot for that partial quantity.

(5) Randomly select test locations for each sublot 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 sublot 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 sublot 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 sublot densities using the individual test results in each sublot.

(2) If all sublot 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 sublot average is more than one percent below the target density, do not include the individual test results from that sublot when computing the lot average density and remove that sublot's tonnage from the daily quantity for incentive. The tonnage from any such sublot 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 sublot 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 sublot 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 sublot. Testing in a previously accepted sublot 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 sublot 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 sublot and lot densities.

(6) If 2 consecutive sublot 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 sublot 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 sublot using the same testing requirements and frequencies as the QC tester.

(3) If the verification sublot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.

(4) If the verification sublot average is more than one percent below the specified target density, compare the QC and QV sublot averages. If the QV sublot average is within 1.0 lb/ft^3 of the QC sublot average, use the QC tests for acceptance.

(5) If the first QV/QC sublot average comparison shows a difference of more than 1.0 lb/ft^3 each tester will perform an additional set of tests within that sublot. Combine the additional tests with the original set of tests to compute a new sublot average for each tester. If the new QV and QC sublot averages compare to within 1.0 lb/ft^3, use the original QC tests for acceptance.

(6) If the QV and QC sublot averages differ by more than 1.0 lb/ft^3 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 sublot density test results or retesting of the sublot 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)

16. QMP Ride; Incentive IRI Ride, Item 440.4410.S.

A Description

(1) This special provision describes profiling pavements with a non-contact profiler, locating areas of localized roughness, and determining the International Roughness Index (IRI) for each wheel path segment.

(2) Profile the final riding surface of all mainline pavements**.** Include auxiliary lanes in Category I and II segments; crossroads with county, state or U.S. highway designations greater than 1500 feet in continuous length; bridges, bridge approaches; and railroad crossings. Exclude roundabouts and pavements within 150 feet of the points of curvature of roundabout intersections.

(3) The engineer may direct straightedging under standard spec 415.3.10 for pavement excluded from localized roughness under C.5.2 (1); for bridges; and for roundabouts and pavements within 150 feet of the points of curvature of roundabout intersections. Other surfaces being tested under this provision are exempt from straightedging requirements.

B (Vacant)

C Construction

C.1 Quality Control Plan

(1) Submit a written quality control plan to the engineer at or before the pre-pave meeting. 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 all quality control personnel.
2. The process by which quality control information and corrective action efforts will be disseminated to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
3. The methods and timing used for monitoring and/or testing ride quality throughout the paving process. Also indicate the approximate timing of acceptance testing in relation to the paving operations.
4. The segment locations of each profile run used for acceptance testing.
5. Traffic Control Plan

C.2 Personnel

(1) Have a profiler operator, certified under the department's highway technician certification program (HTCP), operate the equipment, collect the required data, and analyze the results using the methods taught in the HTCP profiling course. Ensure that an HTCP-certified profiler operator supervises data entry into the material records system (MRS).

C.3 Equipment

(1) Furnish a profile-measuring device capable of measuring IRI from the list of department-approved devices published on the department's web site:

http://roadwaystandards.dot.wi.gov/standards/qmp/index.htm

(2) Unless the engineer and contractor mutually agree otherwise, arrange to have a calibrated profiler available when paving the final riding surface.

(3) Perform daily calibration verification of the profiler using test methods according to the manufacturer's recommendations. Notify the engineer before performing the calibration verification. If the engineer requests, arrange to have the engineer observe the calibration verification and operation. Maintain records of the calibration verification activities, and provide the records to the engineer upon request.

C.4 Testing

C.4.1 Run and Reduction Parameters

(1) Enter the equipment-specific department-approved filter settings and parameters given in the approved profilers list on the department's QMP ride web site.

http://roadwaystandards.dot.wi.gov/standards/qmp/profilers.pdf

C.4.2 Contractor Testing

(1) Operate profilers within the manufacturer's recommended speed tolerances. Perform all profile runs in the direction of travel. Measure the longitudinal profile of each wheel track of each lane. The wheel tracks are 6.0 feet apart and centered in the traveled way of the lane.

(2) Coordinate with the engineer to schedule profile runs for acceptance. The department may require testing to accommodate staged construction or if corrective action may be required.

(3) Measure the profiles of each standard or partial segment. Define primary segments starting at a project terminus and running contiguously along the mainline to the other project terminus. Field-locate the beginning and ending points for each profile run. When applicable, align segment limits with the sublot limits used for testing under the QMP Concrete Pavement specification. Define segments one wheel path wide and distinguished by length as follows:

1. Standard segments are 500 feet long.
2. Partial segments are less than 500 feet long.

(4) Treat partial segments as independent segments.

The department will categorize each standard or partial segment as follows:

Segments with a Posted Speed Limit of 55 MPH or Greater	
Category	**Description**
HMA I	Asphalt pavement with multiple opportunities to achieve a smooth ride. The following operations performed under this contract are considered as opportunities: a layer of HMA, a leveling or wedging layer of HMA, and diamond grinding or partial depth milling of the underlying pavement surface.
HMA II	Asphalt pavement with a single opportunity to achieve a smooth ride.
HMA III	Asphalt pavement segments containing any portion of a bridge, bridge approach, railroad crossing, or intersection. An intersection is defined as the area within the points of curvature of the intersection radii.
PCC II	Concrete pavement.
PCC III	Concrete pavement segments containing any portion of a bridge, bridge approach, railroad crossing, intersection or gap. An intersection is defined as the area within the points of curvature of the intersection radii.

Segments with Any Portion Having a Posted Speed Limit Less Than 55 MPH	
Category	**Description**
HMA IV	Asphalt pavement including intersections, bridges, approaches, and railroad crossings.
PCC IV	Concrete pavement including gaps, intersections, bridges, approaches, and railroad crossings.

C.4.3 Verification Testing

(1) The department may conduct verification testing (QV) to validate the quality of the product. A HTCP certified profiler operator will perform the QV testing. The department will provide the contractor with a listing of the names and telephone numbers of all verification personnel for the project.

(2) The department will notify the contractor before testing so the contractor can observe the QV testing. Verification testing will be performed independent of the contractor's QC work using separate equipment from the contractor's QC tests. The department will provide test results to the contractor within 1 business day after the department completes the testing.

(3) The engineer and contractor will jointly investigate any testing discrepancies. The investigation may include additional testing as well as review and observation of both the department's and contractor's testing procedures and equipment. Both parties will document all investigative work.

(4) If the contractor does not respond to an engineer request to resolve a testing discrepancy, the engineer may suspend production until action is taken. Resolve disputes as specified in C.6.

C.4.4 Documenting Profile Runs

(1) Compute the IRI for each segment and analyze areas of localized roughness using the ProVAL software. Also, the contractor shall prepare the ProVAL Ride Quality Module Reports, showing the IRI for each segment and the areas of localized roughness exceeding an IRI of 200 in/mile. Use ride quality module report as follows:

	Fixed Interval	Continuous (Localized Roughness)
Base-length	500'	25'
Threshold	140"/Mile	200"/Mile

The ProVAL software is available for download at:
http://www.roadprofile.com.

(2) As part of the profiler software outputs and ProVAL reports, document the areas of localized roughness. Field-locate the areas of localized roughness prior to the engineer's assessment for corrective actions. Document the reasons for areas excluded and submit to the engineer.

(3) Within 5 business days after completing profiling of the pavement covered under this special provision, unless the engineer and contractor mutually agree to a different timeline, submit the electronic ProVAL project file containing the .ppf files for each profiler acceptance run data and Ride Quality Module Reports, in .pdf format using the department's Materials Reporting System (MRS) software available on the department's web site:

http://www.atwoodsystems.com/mrs

Notify the engineer when the Profiler Acceptance Run data and the Ride Quality Report have been submitted to the MRS system.

C.5 Corrective Actions

C.5.1 General

(1) Analyze the data from the PROVAL reports and make corrective action recommendations to the department. The department will independently assess whether a repair will help or hurt the long-term pavement performance before deciding on corrective action. Correct the ride as the engineer directs in writing.

C.5.2 Corrective Actions for Localized Roughness

(1) Apply localized roughness requirements to all pavements, including HMA III, PCC III, HMA IV, and PCC IV; except localized roughness requirements will not be applied to pavements within 25 feet of the following surfaces if they are not constructed under this contract: bridges, bridge approaches, or railroad crossings. The department may direct the contractor to make corrections to the pavement within the 25-foot exclusionary zones.

(2) The engineer will review each individual wheel track for areas of localized roughness. The engineer will assess areas of localized roughness within 5 business days of receiving notification that the reports were uploaded. The engineer will analyze the report documenting areas that exceed an IRI of 200 in/mile and do one of the following for each location:

1. Direct the contractor to correct the area to minimize the effect on the ride.
2. Leave the area of localized roughness in place with no pay reduction.
3. Except for HMA IV and PCC IV segments, assess a pay reduction as follows for each location in each wheel path:

Localized Roughness IRI (in/mile)	**Pay Reduction[1] (dollars)**
> 200	(Length in Feet) x (IRI –200)

[1] A maximum $250 pay reduction may be assessed for locations of localized roughness that are less than or equal to 25 feet long. Locations longer than 25 feet may be assessed a maximum pay reduction of $10 per foot.

(3) The engineer will not direct corrective action or assess a pay reduction for an area of localized roughness without independent identification of that area as determined by physically riding the pavement. For corrections, use only techniques the engineer approves.

(4) Re-profile corrected areas to verify that the IRI is less than 140 in/mile after correction. Submit a revised ProVAL ride quality module report to the reference documents section of the MRS for the corrected areas to validate the results.

C.5.3 Corrective Actions for Excessive IRI

(1) If an individual segment IRI exceeds 140 in/mile for HMA I, HMA II, and PCC II pavements after correction for localized roughness, the engineer may require the contractor to correct that segment. Correct the segment final surface as follows:

HMA I:	Correct to an IRI of 60 in/mile using whichever of the following methods as approved by the engineer: Mill and replace the full lane width of the riding surface excluding the paved shoulder. Continuous diamond grinding or fine-tooth milling the full lane width, if required, of the riding surface including adjustment of the paved shoulders.
HMA II:	Correct to an IRI of 85 in/mile using whichever of the following methods as approved by the engineer: Mill and replace the full lane width of the riding surface excluding the paved shoulder. Continuous diamond grinding or fine-tooth milling of the full lane width, if required, of the riding surface including adjustment of the paved shoulders
PCC II:	Correct to an IRI of 85 in/mile using whichever of the following methods as approved by the engineer: Continuous diamond grinding of the full lane width, if required, of the riding surface including adjustment of the paved shoulders. Conform to sections C.1 through C.4 of Concrete Pavement Continuous Diamond Grinding Special provision contained elsewhere in the contract. Remove and replace the full lane width of the riding surface.

(2) Re-profile corrected segments to verify that the final IRI meets the above correction limits and there are no areas of localized roughness. Enter a revised ProVAL ride quality module report for the corrected areas to the reference documents section of the MRS. Segments failing these criteria after correction are subject to the engineer's right to adjust pay for non-conforming work under standard spec 105.3.

C.6 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 testing procedures, and perform additional testing.

(2) If the project personnel cannot resolve a dispute and the dispute affects payment or could result in incorporating nonconforming pavement, the department will use third party testing to resolve the dispute. The department's Quality Assurance Unit, or a mutually agreed on independent testing company, 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 tester. The department may use third party tests to evaluate the quality of questionable pavement and determine the appropriate payment.

D Measurement

(1) The department will measure Incentive IRI Ride by the dollar, adjusted as specified in E.2.

E Payment

E.1 Payment for Profiling

(1) Costs for furnishing and operating the profiler, documenting profile results, and correcting the final pavement surface are incidental to the contract. The department will pay separately for engineer-directed corrective action performed within the 25-foot exclusionary zones under C.5.2 as extra work.

E.2 Pay Adjustment

(1) The department will pay incentive for ride under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
440.4410.S	Incentive IRI Ride	DOL

(2) Incentive payment is not limited, either up or down, to the amount the schedule of items shows.

(3) The department will administer disincentives for ride under the Disincentive IRI Ride administrative item.

(4) The department will not assess disincentive on HMA III or PCC III segments. Incentive pay for HMA III and PCC III segments will be according to the requirements for the category of the adjoining segments.

(5) The department will adjust pay for each segment based on the initial IRI for that segment. If corrective action is required, the department will base disincentives on the IRI after correction for pavement meeting the following conditions:

All Pavement:	The corrective work is performed in a contiguous, full lane width section 500 feet long, or a length as agreed with the engineer.
HMA Pavements:	The corrective work is a mill and inlay or full depth replacement and the inlay or replacement layer thickness conforms to standard spec 460.3.2.
Concrete Pavements:	The corrective work is a full depth replacement and conforms to standard spec 415.

(6) The department will adjust pay for 500-foot long standard segments nominally one wheel path wide using equation "QMP 1.04" as follows:

HMA I	
Initial IRI (inches/mile)	**Pay Adjustment[1] (dollars per standard segment)**
< 30	250
≥ 30 to <35	1750 – (50 x IRI)
≥ 35 to < 60	0
≥ 60 to < 75	1000 – (50/3 x IRI)
≥ 75	-250

HMA II and PCC II	
Initial IRI (inches/mile)	**Pay Adjustment[1] [2] (dollars per standard segment)**
< 50	250
≥ 50 to < 55	2750 – (50 x IRI)
≥ 55 to < 85	0
≥ 85 to < 100	(4250/3) – (50/3 x IRI)
≥ 100	-250

HMA IV and PCC IV	
Initial IRI (inches/mile)	**Pay Adjustment[1] [2] (dollars per standard segment)**
< 35	250
≥ 35 to < 45	1125-(25xIRI)
≥ 45	0

[1] The department will not assess a ride disincentive for HMA pavement placed in cold weather because of a department-caused delay as specified in 450.5(4) of the contract additional special provisions (ASP 6).

[2] If the engineer directs placing concrete pavement for department convenience, the department will not adjust pay for ride on pavement the department orders the contractor to place when the air temperature falls below 35 F.

(7) The department will prorate the pay adjustment for partial segments based on their length.

17. 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 all the work required under this bid item.
460-015 (20140630)

18. Asphaltic Surface Temporary.

Replace standard spec 465.2 (1) with the following:

Under the Asphaltic Surface Temporary bid item; submit a mix design. Furnish asphaltic mixture meeting the requirements specified for either type E-3 or E-10 under standard spec 460.2; except the engineer will not require the contractor to conform to the quality management program specified under 460.2.8.
SEF Rev. 12_1018

19. Cover Plates Temporary, Item 611.8120.S.

A Description
This special provision describes furnishing, installing and removing a steel plate to cover and support asphaltic pavement and traffic loading at manholes, inlets and similar structures during milling and paving operations.

B Materials
Provide a 0.25-inch minimum thickness steel plate that extends to the outside edge of the existing masonry.

C (Vacant)

D Measurement
The department will measure Cover Plates Temporary, acceptably completed 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
611.8120.S	Cover Plates Temporary	Each

Payment is full compensation for furnishing, installing, and removing the cover plates.

The steel plates shall become the property of the contractor when no longer needed in the contract work.
611-006 (20030820)

20. Salvaged Topsoil.

Add the following to standard spec 625.2:

Salvaged Topsoil shall be free of non-seed debris and of invasive weeds including reed canary grass, purple loosestrife, box elder, buckthorn, Canada thistle, garlic mustard, and other weeds.

21. Signs Type I and II Mounted on Overhead Sign Supports.

Furnish and install mounting brackets per approved product list for type II signs on overhead sign supports incidental to sign. For type II signs on sign bridges use aluminum vertical support beams noted above incidental to sign.

Add the following to standard spec 637.2.4:

Use stainless steel bolts, washers and nuts for type I and type II signs mounted on sign bridges or type I signs mounted on overhead sign supports. Use clips on every joint for Sign Plate A 4-6 when mounted on a sign bridge or overhead sign support. Inspect installation of clips and assure bolts and nuts are tightened to manufacturers recommended torque values.

Use aluminum vertical sign support beams that have a 5-inch wide flange and weigh 3.7 pounds per foot, if the L-brackets are 4 inches wide then use 4 inch wide flange beams weighing 3.06 pounds per foot. Contractor shall measure the width of the L-brackets on existing structures of determine the width needed for sign support beams

Use beams a minimum of six feet in length or equal to the height of the sign to be supported, whichever is greater. Use U-bolts that are made of stainless steel, ½ inch diameter and of the proper size to fit the truss cords of each sign bridge. Install vertical sign support beams on each sign and use new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss.

For type II signs on overhead sign supports follow the approved product list for mounting brackets.

Replace standard spec 637.2.4.1(2)2 with the following:

Clips may be either stainless steel or ASTM B 108, aluminum alloy, 356.0-T6.

Add the following to standard spec 637.3.2.1(3):

Provide the engineer with 3 copies of drawings of the signs proposed to be furnished under this contract for approval.

Add the following to standard spec 637.3.3.2(2):

Install Type I Signs at the offset stated in the plan, which shall be the clear distance between the edge of mainline pavement right edgeline and the near edge of the sign.

Add the following to standard spec 637.3.3.3(3):

Furnish and install new aluminum vertical sign support beams on each sign and new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss for Type I or Type II Signs and Type I signs on overhead sign supports incidental to sign.
637-SER1 (20120401)

22. Blue Specific Service Signs.

Supplement standard spec 638.3.4 with the following:

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 (20140630)

23. Field Office Type D, Item 642.5401.

Remove and replace standard spec 642.2.2.1 with the following:

642.2.2.1 General

(1) Provide field facilities that are air conditioned.

(2) Provide high-speed internet, fax and voice with long distance communications services for exclusive department use that have the following:

- A dynamic IP address (DHCP).
- Ability to accommodate IPSec based VPN products.
- A connection speed of 3 Mbps or more with 5 computers operating simultaneously.
- Two programmable touch-tone phones, one of which is cordless. Ensure that phone operations will not interfere with other telecommunications equipment.
- Telephone voice mail service or a telephone answering machine.

(3) Provide and maintain a plain-paper printer/photocopier/scanner with fax capability that can accommodate both 8-1/2” x 11” and 11” x 17” paper. The device shall be capable of multi-sheet auto feeding; ability to scan black/white and color at a minimum of 300 dpi; and shall be equipped with a network connection. Replenish paper, toner cartridges, and other supplies before fully expended.

(4) Provide 4 ergonomically correct office chairs in working condition with, at a minimum, the following:

- Five-legged base with casters.
- Seat adjustable from 15 inches to 22 inches.
- High backrest with no arms or adjustable arms.

Remove and replace standard spec 642.2.2.4 with the following:

642.2.2.4 Type D

(1) Under bid item Field Office Type D, furnish a permanent/fixed facility with a minimum of 1,000 square feet and equipped as specified in 642.2.2.1; and with the following:

- Eight folding tables.
- Eighteen folding chairs.
- Two additional office chairs for a total of 6.

24. 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)

25. Traffic Control Signs PCMS.

Add the following to standard spec 643.3.7:

Program the sign with a default message of “ROAD WORK AHEAD EXPECT DELAY" or as directed by the engineer.

26. Truck or Trailer-Mounted Attenuator 1100-15-71, Item 643.1055.S.01; 1100-38-70, Item 643.1055.S.02; 1100-47-70, Item 643.1055.S.03.

A Description
(1) This special provision describes protecting work operations with a truck or trailer-mounted attenuator (TMA).

B Materials
(1) Furnish and maintain a TMA conforming to NCHRP Report 350 test level 3 or to MASH crashworthiness criteria. Submit written certification from the manufacturer that the host vehicle/attenuator configuration provided conforms to crashworthiness criteria. Include the federal-aid reimbursement eligibility letter with that submittal.

(2) Provide a host vehicle and mount the attenuator conforming to the attenuator manufacturer's specifications. Provide the engineer a copy of the manufacturer’s specifications and installation instructions.

C Construction
(1) Coordinate with the engineer at least 72 hours before its intended use so the engineer can determine if the work operation requires TMA protection.

(2) Position the attenuator at a manufacturer-recommended location in advance of a stationary work operation. Position and maintain the attenuator consistently at the manufacturer-recommended distance from a mobile work operation. Ensure that an operator stays with the host vehicle while protecting a mobile work operation.

D Measurement

(1) The department will measure Truck or Truck-Trailer-Mounted Attenuator (Project) by the day, acceptably completed, measured to the 1/2-day based on the engineer-determined time the attenuator is required to protect work operations. The department will measure 4 or less hours per calendar day as a half day and over 4 hours as a full day.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
643.1055.S.01	Truck or Trailer-Mounted Attenuator 1100-15-71	DAY
643.1055.S.02	Truck or Trailer-Mounted Attenuator 1100-38-70	DAY
643.1055.S.03	Truck or Trailer-Mounted Attenuator 1100-47-70	DAY

(2) Payment is full compensation for providing the portable attenuator, host vehicle, and operator.

643-015 (20140630)

27. Removing Raised Pavement Markers, Item 646.0790.S.

A Description

This special provision describes removing raised pavement markers.

B (Vacant)

C Construction

Remove raised pavement markers as shown on the plans.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
646.0790.S	Removing Raised Pavement Markers	Each

Payment is full compensation for removing and properly disposing of raised pavement markers.

646-070 (20070904)

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

A Description

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

B Materials

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

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

C Construction

C.1 General

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

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

C.2 Groove Depth

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

C.3 Groove Width – Longitudinal Markings

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

C.4 Groove Position

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

C.5 Groove Cleaning

C.5.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with high-pressure

water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

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

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

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

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

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

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

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

- 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. –
- 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.

29. Freeway Lighting Systems.

General
Append standard specs 651, 652, 653, 654, 655, 656, 657 and 659 as follows.

Wet Location Splices
Modify standard spec 655.3.1 as follows:

Wet location splices are not anticipated on this project and not shown in the plans. In the event that the engineer allows wet location splices, make pull box splices with engineer approved epoxy kit.

Branch Circuit Tagouts
Any circuit that the contractor does not personally tag out at the disconnect shall be considered live, and will be subject to being activated by another person with no notice to the contractor. Make tagouts with manufactured tags, and endorse them with the date and the name of the contractor. Clear tagouts at the end of the workday.

Shop Locations
Materials indicated to be returned to the department shall be hauled to one of the following two locations:

- Milwaukee County Grounds, 10191 West Watertown Plank Road, Wauwatosa, as directed by Mr. Pat Stoetzel, (414) 750-5306.
- State Electrical Shop at 935 South 60th street, West Allis, as directed by Mr. Mike Prebish, (414) 266-1170.

Arrange pickups and deliveries three days in advance and during regular business hours (Monday – Thursday 7:00 AM to 3:45 PM).

Corrosion Protection
Corrosion protection measures described in standard specs 657.3.1 and 657.3.5 are invoked for breakaway transformer bases and aluminum light poles.

Wire Networks
Where two or more wire networks pass through a pull point, tag each circuit network (i.e. A/B/N and C/D/N) with approved all-weather tags.

At each pull point or access point, indicate the line side bundle with a lap of blue tape.

Lighting Pull Box Covers
This provision modifies the standard detail drawing for pull boxes and thereby both the standard items and SPV pay item for pull boxes. Lighting pull box covers shall read "LIGHTING".

30. 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)

31. General Requirements for Electrical Work.

Replace standard spec 651.3.3 (3) with the following:

(3) Request a signal inspection of the completed signal installation to the engineer at least five working days prior to the time of the requested inspection. Notify the department's Electrical Field Unit at (414) 266-1170 to coordinate the inspection. The department's Region Electrical personnel will perform the inspection.

32. Electrical Service Meter Breaker Pedestal, USH 41/45 NB Ramp at CTH Q, Item 656.0200.01; USH 41/45 NB Ramp at STH 167, Item 656.0200.02; USH 41/45 SB Ramps at CTH Q, Item 656.0200.03; USH 41/45 SB Ramps at STH 167, Item 656.0200.04.

Append standard spec 656.2.3 with the following:

The department will be responsible for the electrical service installation request for any department maintained facility. Notify the maintaining authority if the signal is not state maintained that it is their responsibility to arrange for the electrical service installation.

Electrical utility company service installation and energy cost will be billed to and paid for by the maintaining authority.

Install the cabinet base and meter breaker pedestal first, so the electrical utility company can install the service lateral. Install a 3" conduit from the point of service from the utility to the meter breaker pedestal. Finish grade the service trench, replace topsoil that is lost or contaminated with other materials, fertilize, seed, and mulch all areas that are disturbed by the electrical utility company.

Append standard spec 656.5(3) with the following:

Payment is full compensation for grading the service trench; replacing topsoil; and for fertilizing, seeding, and mulching to restore the disturbed area of the service trench.

33. Traffic Signal Face, Item 658.0110 and 658.0115.

Append standard spec 658.3.2(3) with the following:

Connect all ungrounded conductors with wire nuts in the appropriate sections of the signal heads, as directed by WisDOT personnel. Connect the neutral conductors to the terminal strip. Be certain to twist wires prior to installing the wire nuts. All wire nuts must be installed facing up to prevent the entrance of water.

34. Pedestrian Signal Face, Item 658.0416.

Append standard spec 658.2.3.2(1) with the following:

The contractor shall furnish 16 inch LED ready pedestrian signal housing, drilled for top/bottom pipe mount with the ability to rotate 270 degrees on poly mounting bracket. Black polycarbonate door with integral "Z" style protectors, egg-crate type visor, lens and gasket mounted to door with four 1-1/2 inch stainless steel tabs.

Append standard spec 658.2.3.2(2) with the following:

The contractor shall anchor a 5-position, 20a terminal block in the pedestrian signal face to the housing with threaded screws.

Append standard spec 658.2.3.2(3) with the following:

The contractor shall furnish 16-inch, incandescent look, full symbol, and dual pedestrian, countdown signal module with Portland Orange hand, Lunar White man and Portland Orange countdown symbols, made of an approved polycarbonate resin.

Append standard spec 658.3.4(3) with the following:

Connect all ungrounded conductors with wire nuts in the appropriate sections of the signal heads, when directed by WisDOT personnel. Connect the neutral conductors to the terminal strip. Be certain to twist wires prior to installing the wire nuts. All wire nuts must be installed facing up to prevent the entrance of water.

35. Pedestrian Push Buttons, Item 658.0500.

Append standard spec 658.2.5 with the following:

The contractor shall furnish vandal resistant, pressure activated, pedestrian push buttons, with die cast body type, in unfinished aluminum or yellow. Button constructed shall be

constructed of stainless steel, with a Piezo driven solid state switch, display and beeper that sounds simultaneously with button push.

The contractor shall furnish low profile, unfinished cast aluminum, vandal resistant, and flush mounting pole mount.

The contractor shall place a Size 1, Type H reflective (R10-3EL, R, D) sign sticker (per state sign plate), message series – B, directly above each push button. Include a directional arrow or arrows on the sign as the plans show.

36. Temporary Traffic Signals for Intersections, USH 41/45 SB Ramps and CTH Q, Item 661.0200.01; USH 41/45 NB Ramps and CTH Q, Item 661.0200.02; USH 41/45 SB Ramps and STH 167, Item 661.0200.03; USH 41/45 NB Ramps and STH 167, 661.0200.04.

Add the following to standard spec 661.2.1 (1):

Furnish all temporary traffic signal equipment as shown on the plan. The signal controller shall be capable of operating with the temporary non-intrusive vehicle detection system. All wood poles shall be plumb and level. Provide primary and secondary temporary traffic signal contact names and phone numbers who will be responsible for implementing temporary traffic signal timing changes. The department may request traffic signal timing changes to an approved incident timing plan during the project. Implement any approved incident timing plan immediately upon notification of the change and immediately upon notification of switching the timing plan back to normal operation. Immediately notify the department of implementation of temporary traffic signal timing changes. Record the times of operation of the incident timing and subsequent return to normal operation and provide this information to the department.

Coordinate with the Traffic Control contractor for the installation of temporary stop signs during switch over of the signal service whenever a generator is used. Placement of signs shall be in accordance to the MUTCD, Signing Guidelines Manual and Work Zone Safety Guide.

Add the following to standard spec 661.2.1 (3):

Contractor shall use existing underground electric service and meter breaker pedestal for the operation of the Temporary Traffic Signal. The department will pay for all energy costs for the operation of the Temporary Traffic Signal. Furnish and install a generator to operate the Temporary Traffic Signal for the time required to switch the existing Permanent Traffic Signal over to the Temporary Traffic Signal as well as the time required to switch the Temporary Traffic Signal over to the new Permanent Traffic Signal.

Contractor shall contact the local electrical utility at least four days prior to making the switch from the existing Permanent Traffic Signal to the Temporary Traffic Signal. The contractor shall contact the local electrical utility at least four days prior to making the switch from the Temporary Traffic Signal to the new Permanent Traffic Signal.

Add the following to standard spec 661.3.1.4 (1):

Arrange for every other week inspections with the engineer to check the height of the span wire above the roadways to ensure that the bottom of the traffic signal heads remain within the minimum and maximum heights allowed above the roadway. Make all height adjustments within 1-hour of an inspection indicating that adjustments are required. Notify the engineer in writing upon completion of all necessary adjustments. Maintain a written log to properly document the date of each every other week inspection, the heights above the roadway, the roadway clearance after adjustments have been made and acceptance by the engineer. Provide all documentation related to the every other week span wire height checks as well as all records related to maintenance performed on the temporary traffic signal installations to the engineer.

Add the following to standard spec 661.5(2):

4. Furnishing and installing the replacement equipment.
5. The cost of delivery and pick-up of the cabinet assemblies.
6. Removal of service and site restoration.

Payment is full compensation for drilling holes; furnishing and installing all materials, including bricks, and coarse aggregate; for excavation, bedding, and backfilling, including any sand or other required materials; furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; for making inspections; for installing a generator to operate the Temporary Traffic Signal for the time required to switch the existing Permanent Traffic Signal over to the Temporary Traffic Signal as well as the time required to switch the Temporary Traffic Signal over to the new Permanent Traffic Signal; and for cleaning up and properly disposing of waste.

37. Ramp Closure Gates Solar 32-FT, Item 662.2032.S; Ramp Closure Gates Solar 37-FT, Item 662.2037.S; 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. This special provision also describes furnishing and delivering spare gate arms and flashers.

B Materials

B.1 General

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

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

B.2 Components

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

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

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

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

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

Gate arm: model MU605

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

Furnish solar power system and batteries conforming to the following:

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

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

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

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

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

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

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

the load has been disconnected. A separate green LED shall indicate the battery is being charged.

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

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

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

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

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

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

Furnish gate flasher assemblies conforming to the following:

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

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

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

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

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

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

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

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

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

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

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

C Construction

C.1 Ramp Closure Gates

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

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

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

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

Install structure identification plaques at the locations shown in the plans per Wisconsin Department of Transportation Standard Detail Drawing 12A4-3.

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

- No Ramp Closure Gate Arms Stockpile items with this contract.

C.3 Furnishing Flashers
Under the Ramp Closure Gate Flasher Stockpile bid item, furnish and deliver spare gate flasher assemblies conforming to B.2. Deliver spare gate arms to an address provided by:

- No Ramp Closure Gate Flasher Stockpile items with this contract.

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

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

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

ITEM NUMBER	DESCRIPTION	UNIT
662.2032.S	Ramp Closure Gates Solar 32-FT	Each
662.2037.S	Ramp Closure Gates Solar 37-FT	Each
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 assembliesincluding guides, collars, and gate arms;for cabinets, wiring, and power converters; for structure identification plaques; and for gate flashers.

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

Payment for the Ramp Closure Gate Flashers Stockpile is full compensation for furnishing and delivering ramp spare closure gate flasher assemblies.
662-010 (20130615)

38. Ramp Closure Barricade Rack 2-Unit, Item 662.6020.S.; Ramp Closure Barricade Rack 3-Unit,Item 662.6030.S.

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

B Materials
Furnish wooden posts conforming to standard spec 634.2.1.

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

Hot dip galvanize each tube according to ASTMA653 grade 90. Treat corner welds and cut ends with cold-galvanized organic zinc paint as manufacturer recommends.

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

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

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

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

ITEM NUMBER	DESCRIPTION	UNIT
662.6020.S	Ramp Closure Barricade Rack 2-Unit	Each
662.6030.S	Ramp Closure Barricade Rack 3-Unit	Each

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

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

Standard spec 106.2 – Supply Source and Quality
Supplement standard spec 106.2 with the following:

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

Department-Furnished Items
72-Count Fiber Optic Cable
6-Count Fiber Optic Cable
Ethernet Switch
Fiber Optic Splice Enclosure
Fiber Optic Termination Panel
Microwave Detector

Pick-up small department-furnished equipment, such as communications devices, cameras, and controllers, from the department's Statewide Traffic Operations Center (STOC), 433 W. St. Paul Ave., Milwaukee, WI 53203 at a mutually agreed upon time during normal state office hours. Contact the department's STOC at (414) 227-2166 to coordinate pick-up of equipment.

Large department-furnished equipment, such as fiber optic cable spools will be delivered by the supplier to a contractor-controlled site in Wisconsin. 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 STOC and the field or interim location(s) shall be the responsibility of the contractor.

Standard spec 106.3 – Approval of Materials
Supplement standard spec 106.3 with the following:

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

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

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

- Mounting assemblies for the vehicle speed and classification sensors, including their attachment to the structure.
- Mounting LED warning signs to the sign structure.
- Mounting detail for dynamic message signs.
- 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 (20100709)

40. Intelligent Transportation Systems – General Requirements.

A Description

A.1 General

This contract includes furnishing and installing elements for an Intelligent Transportation System (ITS) in or along the existing roadway as shown on the plans.

Unusual aspects of this project include:

- The project includes working on cables and equipment that are carrying data between roadside equipment and the department's Statewide Traffic Operations Center (STOC). Interruption of this service is not expected to perform this work. If an interruption is determined necessary, it must be done on a weekend, and must be done in a way that minimizes communication outages for the existing equipment. Notify the department's STOC at least 48 hours in advance of the planned interruption.
- The department will furnish some of the equipment to be installed. Make a reasonable effort to discover defects in that equipment prior to installing it.

A.2 Surge Protection

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

B Materials

B.1 General

Only furnish equipment and component parts for this work that are new and have high quality workmanship. All controls, indicators, and connectors shall be clearly and permanently labeled in a manner approved by the engineer. All equipment of each type shall be identical.

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

B.2 Outdoor Equipment

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

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

B.3 Custom Equipment

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

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

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

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

The printed circuit boards shall be composed of "two-ounce" copper on 1/16-inch thick fiberglass epoxy or equivalent type construction. Holes that carry electrical connections from one side of the boards to the other shall be completely plated through. Multilayer

printed circuit boards shall not be used. The name or reference number used for the board in the drawings and maintenance manuals supplied to the department shall be permanently affixed to each board.

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

B.3 Environmental Conditions

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

- **Vibration and Shock:** Vehicle speed and classification sensors and any other equipment mounted atop poles or on structures shall not be impaired by the continuous vibration caused by winds (up to 90 mph with a 30 percent gust factor) and traffic.
- **Duty Cycle:** Continuous
- **Electromagnetic Radiation:** The equipment shall not be impaired by ambient electrical or magnetic fields, such as those caused by power lines, transformers, and motors. The equipment shall not radiate signals that adversely affect other equipment.
- Electrical Power:
- **Operating power:** The equipment shall operate on 120-volts, 60-Hz, single-phase unless otherwise specified. It shall conform to its specified performance requirements when the input voltage varies from 89 to 135 volts and the frequency varies +3 Hz.
- **High frequency interference:** The equipment operation shall be unaffected by power supply voltage spikes of up to 150 volts in amplitude and 10 microseconds duration.
- **Line voltage transients:** The equipment operation shall be unaffected by voltage transients of plus or minus 20 percent of nominal line voltage for a maximum duration of 50 milliseconds. Equipment in the field shall meet the power service transient requirements of NEMA Standard TS-2 when connected to the surge protectors in the cabinets.
- Temperature and Humidity:
- **Field equipment:** Equipment in the field shall meet the temperature and humidity requirements of NEMA Standard TS-2. Liquid crystal displays shall be undamaged by temperatures as high as 165 degrees F, and shall produce a usable display at temperatures up to 120 degrees F.
- **Equipment in Controlled Environments** shall operate normally at any combination of temperatures between 50 degrees F and 100 degrees F, and humidity's between 5 percent and 90 percent, non-condensing, and with a temperature gradient of 9 degrees F per hour.

B.4 Patch Cables and Wiring

All cables and wiring between devices installed in a single cabinet, or in separate cabinets sharing a single concrete base, will be considered incidental to the installation of the

devices and no separate payment will be made for them. It is anticipated that this will include fiber optic patch cables between termination panels and Ethernet switches, 10 / 100 MBPS Ethernet cables, RS-232 cables between individual devices and terminal servers, and power cables between individual devices and power sources within the cabinets.

B.5 Surge Protection

Low-voltage signal pairs, including twisted pair communication cable(s) entering each cabinet shall be protected by two-stage, plug-in surge protectors and shall be installed on both ends of camera control cables. The protectors shall meet or exceed the following minimum requirements:

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

Cables carrying power to curve signs shall be protected at the cabinet by grounded metal oxide varistors of appropriate voltages. The varistors must be at least 0.8 inch in diameter.

C Construction

C.1 Thread Protection

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

C.2 Cable Installation

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

C.3 Wiring

Every conductor, except a conductor contained entirely within a single piece of equipment, must terminate either in a connector or on a terminal block. Provide and install the

connectors and terminal blocks where needed, without separate payment. Use approved splice kits instead of connectors and terminal blocks for underground power cable splices.

Permanently label and key connectors to preclude improper connection. Obtain prior engineer approval for the labeling method(s) prior to use.

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

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

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

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

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

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

C.4 System Operations
If the contractor's operations unexpectedly interrupt Intelligent Transportation Systems (ITS) service, notify the engineer immediately and restore service within 24 hours. Repair all damaged facilities to the condition existing before the interruption. If service is not restored within 24 hours, the department may restore service to any operating device and deduct restoration costs from payments due the contractor.

C.5 Surge Protection
Arrange the equipment and cabinet wiring to minimize the distance between each conductor's point of entry and its protector. Locate the protector as far as possible from electronic equipment. Ensure that all wiring between the surge protectors and the point of entry is free from sharp bends.

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

E Payment
No separate payment will be made for the work described in this article. All work described in this article shall be included under the ITS items in the contract.
670-010 (20100709)

41. 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)

42. Backfill Slurry, Item SPV.0035.01.

A Description
Furnish and place slurry backfill in accordance to the pertinent requirements of standard spec 209 except as hereinafter modified and as shown on the plans.

B Materials
Use aggregates that conform to standard spec 501 for Grade A Concrete. Weigh aggregates at a batch plant suitable for batching concrete masonry. Mix and deliver to the project site using a truck mixer. Add enough water to enable the mixture to flow readily.

C Construction
Prior to placement of slurry backfill, provide for positive drainage of the area to be backfilled. Discharge from the truck in a manner to prevent segregation. Completely fill excavation in a single operation. Consolidation or compaction effort will not be required. Allow twelve hours to elapse before paving over the backfill.

D Measurement
The department will measure Backfill Slurry in volume by the cubic yard of material, acceptably completed. Such volume will be computed from dimensions of the area to be backfilled as shown in the construction details. In irregular or inaccessible areas, the engineer may allow volume to be determined by other approximate methods.

E Payment
The department will pay for measured quantities at the contract unit price in accordance to standard spec 209.5 under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.01	Backfill Slurry	CY

Payment is full compensation for providing positive drainage of area backfilled and for furnishing and placing slurry.

43. Connecting Pipe Underdrain 4-Inch to Existing Inlets, Item SPV.0060.01.

A Description
This special provision describes excavating, drilling/coring, removing debris from the work area, installing pipe underdrain, and backfilling at inlets in locations where the engineer directs. The intent is to provide positive drainage in the proposed pipe underdrain between the inlet and the base of the EBS backfill or base aggregate beneath the roadway shoulder.

B Materials
Furnish mortar conforming to standard spec 501.

C Construction
Install in accordance to the plan details for the intended use, as directed by the engineer in the field. Connect new Pipe Underdrain 4-Inch to existing inlets where directed by the engineer. This typically will be at median EBS locations where the median ditch is flat and where an existing inlet is located nearby.

Provide an excavation adjacent to existing inlet structure large enough to complete the required work.

Core or drill a hole in sidewall of the existing inlet structure, of sufficient diameter to accommodate Pipe Underdrain 4-Inch. Install Pipe Underdrain 4-Inch the full thickness of the concrete inlet wall, plus 4-inches extending into the inlet box. Mortar the space between the pipe underdrain and the inside of the hole in the inlet wall. Place the hole at least 1 foot below the top of the inlet structure, or as directed by the engineer. Holes deeper than 1-foot may be required for positive drainage.

Backfill the excavation in lifts of 8 inches and compact each lift prior to placing the next lift, to prevent settlement of the material supporting the pipe underdrain, or settlement of the completed ground surface adjacent to the inlet.

Meet the pertinent requirements as set forth in standard spec 612.3.5 (2) amended as follows:

The contractor may backfill Pipe Underdrain 4-inch at the inlet and within the right-of-way or freeway median beyond the roadway and shoulder limits, with suitable material from the trench or roadway excavation unless granular backfill is specified.

D Measurement
The department will measure Connecting Pipe Underdrain 4-Inch to Existing Inlets 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.0060.01	Connecting Pipe Underdrain 4-Inch to Existing Inlets	Each

Payment is full compensation for excavating at the inlet, coring or drilling, cleaning, including removal of the concrete core from hole drilled in the wall of the inlet; for any checking of elevations; for any associated dewatering; for providing and placing mortar, providing and placing all backfill; for maintaining temporary drainage; and for disposing of surplus material. The Pipe Underdrain 4-inch, Base Aggregate Dense 1 ¼", Base Aggregate Dense ¾", and/or Breaker Run items are paid separately as part of the roadway work and use of these materials for Connecting Pipe Underdrain 4-Inch to Existing Inlet are incidental to the Connecting Pipe Underdrain 4-Inch to Existing Inlet bid item.

44. Clearing of Overgrowth and Cleaning Existing Storm Sewer System, Item SPV.0060.02.

A Description
This special provision describes clearing of overgrowth and cleaning the existing storm sewer system at each individual inlet or catch basin location as shown on the plans.

B (Vacant)

C Construction
Clear all overgrowth on the existing concrete apron endwalls and the storm sewer pipes. Clean all existing inlets, catch basins, various sized and length of storm sewer pipes, and concrete apron endwalls as shown on the plans and as directed by the engineer.

Use truck mounted vacuum cleaning method to remove the dirt, grit, and other debris that built up in the existing inlets, catch basins, and storm sewer pipes. Do not wash or flush the built up materials into existing ditch, waterway or wetland. Dispose all excess materials at locations approved by the engineer.

D Measurement
The department will measure Clearing of Overgrowth and Cleaning Existing Storm Sewer System as each individual storm sewer inlet or catch basin location, 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.0060.02	Clearing of Overgrowth and Cleaning Existing Storm Sewer System	Each

Payment is full compensation for clearing of overgrowth, cleaning existing inlets, catch basins, various sized and length of storm sewer pipes, and concrete apron endwalls for culvert pipes, and for disposing of all excess material.

45. Storm Sewer Tap, Item SPV.0060.03.

A Description
This special provision describes tapping various sized storm sewer pipes into existing structures, including manholes or inlets, or other pipes at locations shown on the plans.

Perform the work in accordance to the applicable provisions of standard spec 607 and standard spec 611.

B (Vacant)

C Construction
Tap into the existing structure to allow the pipe to be flush with the interior wall of the existing pipe or structure.

D Measurement
The department will measure Storm Sewer Tap as each individual storm sewer tap, 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.0060.03	Storm Sewer Tap	Each

Payment is full compensation for providing all materials, saw cuts, excavating, removing concrete, providing and removing sheeting and shoring, making connections to new or existing facilities, cleaning out.

46. Concrete Barrier Transition Special, Item SPV.0060.04.

A Description
This special provision describes constructing a Concrete Barrier Transition Special, as shown on the plans and as hereinafter provided.

B Materials
Provide concrete masonry in accordance to standard spec 603.2.

C Construction
Construct Concrete Barrier Transition Special in accordance to standard spec 603.3 and as shown in the plans.

D Measurement
The department will measure Concrete Barrier Transition Special 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.0060.04	Concrete Barrier Transition Special	Each

Payment is full compensation for preparing foundation, furnishing, hauling and placing of all materials; and for excavation, backfilling and disposing of excess material.

47. Terminal High-Tension Cable Guard TL-3, Item SPV.0060.05, High-Tension Cable Guard TL-3 Socketed, SPV.0090.01

A Description
This special provision describes providing socketed high-tension TL-3 cable guard meeting the National Cooperative Highway Research Program (NCHRP) Report 350, Test Level 3. These items are being installed on USH 41 Bridge replacement over the Menomonee in Washington County as part of Wisconsin Research Study #WI-C17-2007.

B Materials
Materials are to be acquired from the manufacturers below:

Safence TL-3 4 cable barrier
Gregory Industries, Inc.
4100 13th Street, SW
Canton, Ohio 44710
Phone: (330) 477-4800
Fax: (330) 477-0626

Brifen TL-3 4 cable barrier
12501 N. Santa Fe Ave.
Oklahoma City, OK 73114 USA
Office: (405) 751-8062
Fax: (405) 751-8338

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

Furnish steel reinforcement conforming to standard spec 505.

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

Furnish zinc-coated hardware as specified in AASHTO M232.

B.2 Design Requirements

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

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

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

Provide a system to have a maximum deflection of 8 feet. Provide design documentation on how post spacing, radius of curve, direction of curve, and anchor spacing influences barrier deflection.

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

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

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

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

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

Soils information can be obtained by contacting Christine Hanna, Project Manager, at (262) 548-8809.

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

C Construction

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

Construct concrete as specified in standard spec 501.

Construct steel reinforcement as specified in standard spec 505.

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

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

Tension the cable according to the manufacturer's recommendations at the time of installation, and then check and adjust approximately 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.

Field swage connections per manufacturer's recommendations and details.

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

Install reflective delineators at even post spacing intervals close to 100 feet.

D Measurement
The department will measure Terminal High-Tension Cable Guard TL-3 as each individual unit, acceptably completed.

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

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Terminal High-Tension Cable Guard TL-3	Each
SPV.0090.01	High-Tension Cable Guard TL-3 Socketed	LF

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

48. Section Corner Monuments Special, Item SPV.0060.06.

A Description
This special provision describes the coordination with Washington County and Southeast Wisconsin Regional Planning Commission (SEWRPC) and providing a backfilled hole for placement of a section corner monument.

B Materials
Furnish base aggregate dense materials that conform to standard spec 305.

C Construction
The contractor must contact the engineer and the Washington County Surveyor - Scott Schmidt and SEWRPC at least two weeks prior to work near any public survey monument and provide a backfilled hole for placement of a section corner monument.

The primary contact should be listed as the Washington County Surveyor, Scott Schmidt and the secondary contact as SEWRPC's Donald Simon, John Washburn with the contact information below:

Contact Information:

Washington County Engineer/Surveyor
Scott M. Schmidt, PE, RLS
Washington County Public Agency Center (PAC)
333 East Washington St, Suite 2300
P.O. Box 2003
West Bend, WI 53095-2003
Phone: (262) 335-6881
Fax: (262) 335-4171
Email: scott.schmidt@co.washington.wi.us

Contact Information:

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

Washington County shall remove the existing section corner monuments and shall provide pre-cast monuments for the section corners. Washington County or its partner SEWRPC will install a pre-cast monument for the section corners. The contractor shall contact Scott M. Schmidt at (262) 335-6881 one week prior to paving operations to coordinate installation of the monuments. The contractor shall provide a 2-foot diameter by 3-foot deep hole backfilled with compacted base aggregate dense material in the location of the section corner monument.

D Measurement

The department will measure Section Corner Monuments Special 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	Section Corner Monuments Special	Each

Payment is full compensation for furnishing all excavating; for placing and compacting backfill material; for disposing of surplus materials; for furnishing all coordination with Washington County and SEWRPC.

621-SER1 (20080714)

49. Permanent Barricades Type III, Item SPV.0060.07.

A Description
This special provision describes furnishing barricades with "RAMP CLOSED" signs attached in accordance to the requirements of standard spec 643, as shown on the plans and as hereinafter provided. In conjunction with this special provision, refer to the Ramp Closure Barricade Rack special provision.

B Materials
Provide new barricades with 8 foot rails and one "RAMP CLOSED" sign attached to each individual barricade to the project.

C Construction
Deliver and hang the Permanent Barricades Type III on the Ramp Closure Barricade Rack.

D Measurement
The department will measure Permanent Barricades Type III in place 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.0060.07	Permanent Barricades Type III	Each

Payment is full compensation for furnishing, delivering, and placing the barricades with "RAMP CLOSED" signs on the Ramp Closure Barricade Rack. The "RAMP CLOSED" sign is incidental to each Permanent Barricades Type III.

50. Removing and Salvage Lighting Units, Item SPV.0060.08.

A Description
This special provision describes the removing lighting units (pole, arm, luminaire, wires, breakaway device, and associated hardware and appurtenances) and salvaging pole, arm, breakaway devices, and associated hardware and appurtenances for reuse. Lamp disposal shall be paid separately.

B (Vacant)

C Construction
As shown in the plans, remove and salvage for re-installation on the site.

D Measurement
The department will measure Removing and Salvage Lighting Units by each removed and salvage 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.0060.08	Removing and Salvage Lighting Units	Each

Payment is full compensation for removing lighting units, and salvaging; and for disposal of all removed materials.

51. Removing Luminaires, Item SPV.0060.09.

A Description

The work under this item shall consist of removing existing luminaires from light poles intended to remain in service.

B (Vacant)

C Construction

Dispose of all materials off the site, except sodium vapor lamps. Lamps shall be disposed of under the requirements of a separate pay item.

D Measurement

The department will measure Removing Luminaires 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.0060.09	Removing Luminaires	Each

Payment is full compensation for removing, hauling, and properly disposing of materials.

52. Lamp Disposal High Intensity Discharge, Item SPV.0060.10.

A Description

This special provision describes packaging, palletizing, and returning HID (metal halide; mercury vapor and high-pressure sodium) lamps removed under this contract to the department at the State Electrical Shop, 935 South 60th Street, West Allis, WI.

B (Vacant)

C Construction

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

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

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

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

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

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.10	Lamp Disposal High Intensity Discharge	Each

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

53. Install Salvage Lighting Units, Item SPV.0060.11.

A Description

The work under this item shall consist of the re-installation of lighting units removed from the site. Install new pole wire, luminaires utility LED and fusing for separate payment.

B Materials

Furnish and install small parts and fittings as needed per each location.

C Construction
Conform to the applicable requirements of standard specs 657 and 659.

D Measurement
The department will measure Install Salvage Lighting Units by the unit, installed and connected for service.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.11	Install Salvage Lighting Units	Each

Payment is full compensation for installing salvaged poles; and for furnishing all materials, and incidentals necessary to complete the contract work.

54. Pavement Marking Grooved Preformed Thermoplastic Arrows Type 2, Item SPV.0060.12; Arrows Type 3, Item SPV.0060.13; Arrows Type 5, Item SPV.0060.14; Words, Item SPV.0060.15; Crosswalk 6-Inch, Item SPV.0090.02; Stop Bars 18-Inch, Item SPV.0090.03.

A Description
This special provision describes grooving the pavement surface, and furnishing and installing preformed thermoplastic pavement marking as shown on the plans, in accordance to standard spec 647, and as hereinafter provided.

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

C Construction
C.1 General
For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of preformed thermoplastic pavement marking.

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

C.2 Groove Depth
Cut the groove to a depth of 120 mils ±10 mils deep from the pavement surface or, if tined, from the high point of the tined surface. Measure depth using a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Linear Markings
Cut the groove 1-inch wider than the width of the thermoplastic.

C.4 Groove Position
Position the groove edge in accordance to the plan details.

C.4.1 Linear Marking
Groove at a minimum of 4-inches, but not greater than, 12-inches from both ends of the line segment. Achieve straight alignment with the grooving equipment.

C.4.2 Special Marking
Groove at a minimum of 4-inches from the perimeter of the special marking. Groove separate areas for Word Items.

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

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, after removal of excess water, and prior to pavement marking application. Clean and dry the groove for proper application of the sealant, and placement of the pavement marking. Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 Asphalt
Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

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

C.6 Preformed Thermoplastic Application
Preheat the surface if necessary based on manufacturer's recommendation.

Apply preformed thermoplastic in the groove as per manufacturer's recommendations. If manufacturer's recommendations require a sealant, apply a sealant lower than 91g/l VOC during the following period of time due to Volatile Organic Compound Limitations:

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

Use any sealant in the remainder counties and for the remainder of the year. The sealant must be wet.

D Measurement
The department will measure Pavement Marking Grooved Preformed Thermoplastic (Type) by each individual unit, acceptably completed, or in length by the linear foot of tape placed, 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.0060.12	Pavement Marking Grooved Preformed Thermoplastic Arrows Type 2	Each
SPV.0060.13	Pavement Marking Grooved Preformed Thermoplastic Arrows Type 3	Each
SPV.0060.14	Pavement Marking Grooved Preformed Thermoplastic Arrows Type 5	Each
SPV.0060.15	Pavement Marking Grooved Preformed Thermoplastic Words	Each
SPV.0090.02	Pavement Marking Grooved Preformed Thermoplastic Crosswalk 6-Inch	LF
SPV.0090.03	Pavement Marking Grooved Preformed Thermoplastic Stop Bars 18-Inch	LF

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

55. Install 5.8 GHz Ethernet Bridge, USH 41/45 SB and NB Ramps at CTH Q, Item SPV.0060.16.

A Description
This special provision describes installing a department-furnished, or salvaged, 5.8 GHz Ethernet ratio and associated external antenna at a new or existing cabinet or new or existing pole

B Materials
Materials will include department-furnished materials and contractor furnished materials.

Department-furnished or salvaged, materials include the following

- One 5.8 GHz Ethernet Bridge with integral antenna
- One 5.8 GHz Ethernet bridge power converter
- One 5.8 GHz Ethernet bridge mounting bracket.
- One 5.8 GHz Ethernet bridge external antenna where directed by the plans or by the engineer.

Contractor furnished materials include the following:

- Mounting hardware.
- Outdoor rated Category 6 communications cable.
- Inline network cable surge suppressor.
- Coax cable from 5.8 GHz Ethernet bridge to external antenna.

C Construction

Bond the surge suppressor to the cabinet grounding system.

Install the 5.8 GHz Ethernet Bridge in a point-to-point or point-to-multipoint configuration as shown on the plans and as directed by the engineer.

Use the manufacturer's set-up software to configure the Ethernet bridge radio for its intended use. Use the signal strength indicator on the radio to find the optimum position. Also perform a frequency analysis to determine the optimal hop pattern of the radios and test the continuity of the link by polling the radios using the software provided. The position of the radio and the hop pattern shall be adjusted until the polls show at least 200 consecutive polling intervals have been successfully transmitted and received. Demonstrate to the engineer that the hop pattern selected corresponds to the optimal noise free frequencies identified in the frequency analysis. Deliver three copies of the final test results for signal strength, frequency analysis, and test polling.

D Measurement

The department will measure Install 5.8 GHz Ethernet Bridge (Location) 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.0060.16	Install 5.8 GHz Ethernet Bridge USH 41/45 SB and NB Ramps at CTH Q	Each

Payment is full compensation for installing, setting up, configuring, and testing the 5.8 GHz Ethernet bridge radio, surge suppressor, cables, and connections; and transportation.

56. Removing Wireless Ethernet Bridge, Item SPV.0060.17.

A Description

This special provision describes removing an existing Wireless Ethernet Bridge and cable from an existing pole.

B Materials
Existing Wireless Ethernet Bridge and associated cable.

C Construction
Carefully remove the Wireless Ethernet Bridge and store in a safe and secure location for pick up by the department as shown on the plans or as directed by the engineer. The contractor will be responsible for any damage to the Wireless Ethernet Bridge. The department becomes the owner of the removed Wireless Ethernet Bridges and is responsible for picking up the Wireless Ethernet Bridges after they are removed, salvaged, and stored.

Contact Jeff Madson at (414) 225-3725 once all Wireless Ethernet Bridges are removed, salvaged, and stored in one safe and secure location.

D Measurement
The department will measure Removing Wireless Ethernet Bridge by each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.17	Removing Wireless Ethernet Bridge	Each

Payment is full compensation for removal and storage of the Wireless Ethernet Bridge and cable; and for disconnecting all associated wires and cables, transportation, and incidentals necessary to complete the work.

57. Removing Parabolic Antenna, Item SPV.0060.18.

A Description
This special provision describes removing an existing parabolic antenna, used with a wireless Ethernet bridge, and cable from an existing pole.

B Materials
Existing Ethernet radio parabolic antenna and associated cable.

C Construction
Carefully remove the parabolic antenna and cable from the existing pole and dispose of them appropriately away from the project area.

D Measurement
The department will measure Removing Parabolic Antenna by each individual removed 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.0060.18	Removing Parabolic Antenna	Each

Payment is full compensation for removal and disposal of the parabolic antenna and cable; disconnecting all associated wires and cables.

58. Removing Yagi Antenna, Item SPV.0060.19.

A Description
This special provision describes removing an existing yagi antenna, used with a 900 MHz spread spectrum radio, and cable from an existing pole.

B Materials
Existing spread spectrum radio yagi antenna and associated cable.

C Construction
Carefully remove the yagi antenna and cable from the existing pole and dispose of them appropriately away from the project area.

D Measurement
The department will measure Removing Yagi Antenna by each individual removed 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.0060.19	Removing Yagi Antenna	Each

Payment is full compensation for removal and disposal of the yagi antenna and cable; and for disconnecting all associated wires and cables.

59. Ground Rod, Item SPV.0060.20.

A Description
This special provision describes 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 six feet from all other ground rods.

D Measurement
The department will measure Ground Rod by each individual unit, acceptably completed.

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.0060.20	Ground Rod	Each

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

60. Drain Slotted Vane Longitudinal, Item SPV.0090.04.

A Description
This special provision describes furnishing and installing Drain Slotted Vane Longitudinal as shown on the plans, in accordance to standard specs 501, 505, 607, and 611, and as hereinafter provided.

B Materials
Construct the pipe that the vane drain casting rests in using 15-inch diameter SDR-35 poly vinyl chloride, (PVC) sewer pipe for permanent drains subjected to live traffic.

Conform to standard spec 611 for all other materials.

Conform to standard spec 415.2.1 for encasing material around the pipe.

Furnish steel reinforcement conforming to standard spec 415.2.2

Furnish concrete curing compounds conforming to standard spec 415.2.4.

C Construction
Prior to encasing the pipe in concrete, cover the upper end of the slotted drain as shown on the plans. Otherwise, obtain engineer approval prior to any variations.

Prior to construction operations adjacent to the slotted area of the slotted vane drain pipe, cover the slots on the top of the drain.

D Measurement
The department will measure 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.0090.05	Drain Slotted Vane Longitudinal	LF

Payment is full compensation for furnishing 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; sawing; encasement material around the pipe; concrete curing compound; tie bars and dowel bars cleaning out and restoring site of work; and for repairing opening of drainage structure.

Remove any material entering the pipe at own expense. If any section of pipe is damaged or is unsatisfactory as determined by the engineer, replace the drainpipe at own expense.
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61. Heavy Duty Silt Fence, Item SPV.0090.05.

A Description
Furnish, install, and remove heavy duty silt fence as shown on the plans or as directed by the engineer before construction activities begin. Remove the silt fence only after construction activities have been completed. Remove trapped silt prior to removing the fence as directed by the engineer. Use in wetland areas with 6-12 inches of standing water.

B Materials
Furnish heavy duty silt fence consisting of a composite of woven wire fabric, posts, geotextile fabric, and fasteners to be assembled by the contractor. Woven wire fabric shall be a standard field fence type a minimum of 5 feet high with a maximum mesh spacing of 6 inches and minimum 14½-gage wire.

Posts shall be metal with a minimum length of 8 feet, 3 inches. Metal posts shall be “studded tee” or “U” type with a minimum weight of 1.3 lb/ft.

The geotextile fabric shall be non-woven with properties as specified in standard spec 628.2.6.1.

C Construction
Install heavy duty silt fence as shown on the plans. Spacing of ties and anchors shall be adequate to resist current flow.

D Measurement
The department will measure Heavy Duty Silt Fence 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	Heavy Duty Silt Fence	LF

Payment is full compensation for furnishing, installing, maintaining, and removing fence.

62. Pavement Marking Contrast Epoxy 4-Inch, Item SPV 0090.06.

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

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

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

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

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.06	Pavement Marking Contrast Epoxy 4-Inch	LF

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the material; furnishing, placing, and removing temporary pavement marking, if necessary, for protecting until cured; and for replacing marking improperly constructed or failures during the proving period.

63. Milling and Removing Temporary Longitudinal Joint, Item SPV.0090.07.

A Description
This special provision describes the milling and removing of the lower layer and upper layer temporary longitudinal joint, including sweeping and cleaning of the affected area prior to the abutting pavement placement.

B (Vacant)

C Construction
Immediately prior to the placement of the adjoining lane, mill any temporary wedge joint to a true line with a face perpendicular to the existing asphaltic surface pavement.

The contractor becomes the owner of the removed asphaltic pavement and is responsible for the disposal as specified for disposing of materials under standard spec 204.3.1.3.

D Measurement
The department will measure Milling And Removing Temporary Longitudinal Joint 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.0090.07	Milling And Removing Temporary Longitudinal Joint	LF

Payment is full compensation for milling, removing, sweeping, cleaning, and disposing of materials.

64. Grading, Shaping, and Finishing Slope Paving Approaches at USH 41 and CTH Q, Item SPV.0105.01; USH 41 NB and Maple Road, Item SPV.0105.02; USH 41 and Lannon Road, Item SPV.0105.03; USH 41 and Friestadt Road, SPV.0105.04; USH 41 and Holy Hill Road, Item SPV.0105.05.

A Description
This special provision describes excavating, filling, grading, shaping, compacting and finishing, as necessary, to construct the sloping paving approaches as shown on the plans and in accordance to the pertinent requirements of the standard specifications and as hereinafter provided.

B Material
Excavate all materials in accordance to standard spec 205.2.2. Use fill materials in accordance to standard spec 207.2 and standard spec 625.2.

C Construction
Excavate, fill, grade, shape, compact, and finish as shown on the plans and as directed by the engineer. Place fill materials in accordance to standard spec 207.3 and standard spec 625.3.

D Measurement
The department will measure Grading, Shaping and Finishing Slope Paving Approaches at each individual overpass structure, as a single complete lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Grading, Shaping, and Finishing Slope Paving Approaches at USH 41 and CTH Q	LS
SPV.0105.02	Grading, Shaping, and Finishing Slope Paving Approaches at USH 41 NB and Maple Road	LS
SPV.0105.03	Grading, Shaping, and Finishing Slope Paving Approaches at USH 41 and Lannon Road	LS
SPV.0105.04	Grading, Shaping, and Finishing Slope Paving Approaches at USH 41 and Friestadt Road	LS
SPV.0105.05	Grading, Shaping, and Finishing Slope Paving Approaches at USH 41 and Holy Hill Road	LS

Payment is full compensation for furnishing all common excavation, borrow, cutting, filling, grading, and compacting or shaping necessary to meet the requirements of the plans; and for providing and placing fill, salvaged topsoil, and topsoil materials.

Base aggregate dense, slope paving crushed aggregate, fertilizer, seed, and erosion mat will be measured and paid for under the pertinent items provided in the contract.

65. Grading, Shaping, and Finishing Back Slope at STA 446+00 RT, Item SPV.0105.06; Grading, Shaping, and Finishing Median Ditch from STA 395+00 to STA 419+00, Item SPV.0105.07.

A Description

This special provision describes excavating, filling, grading, shaping, compacting and finishing, as necessary, to construct the back slope between USH 41 NB and exit ramp to Lannon Road and along the USH 41/45 median ditch from Station 395+00 to Station 419+00 as shown on the plans and in accordance to the pertinent requirements of the standard specifications and as hereinafter provided.

B Material

Excavate all materials in accordance to standard spec 205.2.2. Use fill materials in accordance to standard spec 207.2 and standard spec 625.2.

C Construction

Excavate, fill, grade, shape, compact, and finish as shown on the plans and as directed by the engineer. Place fill materials in accordance to standard spec 207.3 and standard spec 625.3.

D Measurement

The department will measure Grading, Shaping and Finishing Back Slope at Station 446+00 RT and Grading, Shaping, and Finishing Median Ditch from Station 395+00 to Station 419+00 as a single complete lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.06	Grading, Shaping, and Finishing Back Slope at STA 446+00 RT	LS
SPV.0105.07	Grading, Shaping, and Finishing Median Ditch from STA 395+00 to STA 419+00	LS

Payment is full compensation for furnishing all common excavation, borrow, cutting, filling, grading, and compacting or shaping necessary to meet the requirements of the plans; for providing and placing fill salvaged topsoil, and topsoil materials.

Base aggregate dense, asphaltic flume, fertilizer, seed, and erosion mat will be measured and paid for under the pertinent items provided in the contract.

66. Maintaining Drainage During Construction, SPV.0105.08.

A Description

This special provision describes maintaining drainage during construction operations at B-66-0105 as shown on the plans and in accordance to the pertinent requirements of the standard specifications and as hereinafter provided.

B Material

Provide materials in accordance to standard specs 520 and 628.

C Construction

Maintain drainage at and through worksite during construction in accordance to standard specs 205, 520, and 628.

C.1 Design Requirements

It is the responsibility of the contractor to submit a design for maintaining temporary drainage during construction with the Erosion Control Implementation Plan (ECIP) documentation for approval by the department and the DNR.

An example of a potential method to maintain temporary drainage is provided in the plans. The contractor is not required to use this detail and shall be responsible for designing a temporary drainage system using the design criteria below. The contractor shall be responsible for determining rock bag placement, pipe size, and pump size.

The design must withstand a 2-year storm event. Use the following design criteria:

- $Q_{2\text{-year}} = 130$ cfs
- $HW_{2\text{-year}} = 858.23$ elevation

The design must maintain enough water flow for fish or other aquatic organisms to pass through the worksite.

Use existing storm sewers, existing culvert pipes, existing drainage channels, temporary culvert pipes, or temporary drainage channels to maintain existing surface and pipe drainage. Pumps may be required to drain the surface, pipe, and structure discharges during construction. Costs for furnishing, operating, and maintaining the pumps is considered incidental to the project.

Pumping from the west side of USH 41/45 to the east side of USH 41/45 as the sole means of maintaining drainage is not permitted.

C.2 Dewatering

Do not allow any excavation for; structures, utilities, grading, maintaining drainage that requires dewatering (mechanical pumping) of water containing sediments (sand, silt, and clay particles) to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Prior to each dewatering operation, submit to the department a separate ECIP amendment describing in words and pictorial format an appropriate best management practice for sediment removal, in accordance to WisDNR Storm Water Construction Technical Standard, Code 1061, Dewatering. Include reasoning, location, and schedule duration proposed for each operation. Per Code 1061, include all selection criteria: site assessment, dewatering practice selection, calculations, plans, specifications, operations, maintenance, and location of proposed treated water discharge. Provide a stabilized discharge area. If directing discharge towards or into an inlet structure, provide additional inlet protection for back-up protection.

C.3 Dewatering (Mechanical Pumping) for Bypass Water (sediment-free) Operations

If dewatering bypass operations are required from one pipe structure to another downstream pipe structure or from the upstream to downstream end of a culvert and the bypass flow is not transporting sediments (sand, silt, and clay particles) from a tributary work site area, bypass pumping operations will be allowed provided that the department has been made aware of and approves operation. When pumping bypass flows, the discharge location will need to be stable and not produce any erosion from the discharge velocity that would cause release of sediment downstream.

C.4 Dewatering (Mechanical Pumping) for treatment Water (sediment-laden) Operations

If dewatering operations require pumping of water containing sediments (sand, silt, and clay particles), the discharge will not be allowed to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. During dewatering operations, sediment laden water shall be pumped into an adequate sediment basin, approved by the engineer, in an upland area prior to discharge into a wetland or waterway.

C.5 Dewatering / Bypass Pumping Backup Equipment

Provide an additional dewatering pump and generator to remain on site for use as a backup in case either the primary pump or generator is not in good working condition.

Provide the engineer with 24-hour contact information for an individual who is responsible for operating the pumps.

A representative of the contractor shall be at the construction site during rain events in order to monitor temporary drainage during rain events. Contact the engineer immediately if temporary drainage measures are damaged or are insufficient to handle the volume of water.

D Measurement

The department will measure Maintaining Drainage During Construction as a single complete lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.08	Maintaining Drainage During Construction	LS

Payment is full compensation for any common excavation needed for temporary pipe installation; for furnishing all pumping and dewatering operations; for furnishing all materials including (but not limited to) temporary culvert pipes, polyethylene sheeting, and rock bags; for placement, replacement, and any moving of materials.

The table shown in the miscellaneous quantities section of the planset is for information only and lists possible items and quantities needed to satisfy this special provision. Actual items and quantities used may vary. No contract modifications will be issued for this variation

67. Install State Furnished Traffic Signal Cabinet, USH 41/45 SB Ramps at CTH Q, Item SPV.0105.09; USH 41/45 NB Ramps at CTH Q, Item SPV.0105.10; USH 41/45 SB Ramps at STH 167, Item SPV.0105.11; USH 41/45 NB Ramps at STH 167, SPV.0105.12.

A Description

This special provision describes the installing of the state furnished Traffic Signal Cabinet for traffic signals.

B Materials

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

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

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

Append standard spec 651.3.3 (6) with the following:

Operate the completed traffic signal installation for 30 days consecutively, using the specified signal sequence(s) and all special functions, such as preemption as the plans show or as specified by the engineer.

C Construction

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

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

D Measurement

The department will measure Install State Furnished Traffic Signal Cabinet (Location) as a single lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.09	Install State Furnished Traffic Signal Cabinet USH 41/45 SB Ramps at CTH Q	LS
SPV.0105.10	Install State Furnished Traffic Signal Cabinet USH 41/45 NB Ramps at CTH Q	LS
SPV.0105.11	Install State Furnished Traffic Signal Cabinet USH 41/45 SB Ramps at STH 167	LS
SPV.0105.12	Install State Furnished Traffic Signal Cabinet USH 41/45 NB Ramps at STH 167	LS

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

68. Transporting Traffic Signal and Intersection Lighting Materials, USH 41/45 SB Ramps at CTH Q, Item SPV.0105.13; USH 41/45 NB Ramps at CTH Q, Item SPV.0105.14; USH 41/45 SB Ramps at STH 167, Item SPV.0105.15; USH 41/45 NB Ramps at STH 167, SPV.0105.16.

A Description

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

B Materials

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

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 five (5) working days prior to pick up.

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

C Construction

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

D Measurement

The department will measure Transporting Traffic Signal and Intersection Lighting Materials (Location) as a single lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.13	Transporting Traffic Signal and Intersection Lighting Materials USH 41/45 SB Ramps at CTH Q	LS
SPV.0105.14	Transporting Traffic Signal and Intersection Lighting Materials USH 41/45 NB Ramps at CTH Q	LS
SPV.0105.15	Transporting Traffic Signal and Intersection Lighting Materials USH 41/45 SB Ramps at STH 167	LS
SPV.0105.16	Transporting Traffic Signal and Intersection Lighting Materials USH 41/45 NB Ramps at STH 167	LS

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

69. Transporting and Installing State Furnished Autoscope Video Detection System, USH 41/45 SB Ramps at CTH Q, Item SPV.0105.17; USH 41/45 NB Ramps at CTH Q, Item SPV.0105.18.

A Description

This special provision describes the transporting and installing of department furnished Traffic Signal Autoscope Video Detection System on Monotube and Luminaire arms.

B Materials

Pick up all the department furnished Autoscope Video Detection System for all state maintained traffic signals for the project at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical field unit at (414) 266-1170 to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

C Construction

Install the Traffic Signal Terra Power Cable 18/3, the camera manufacturer's connector cable whip, pole/arm mounting bracket, extension arm (if required) and camera as shown on the plans (the final determination of location will be made by the department's electrical personnel to ensure best line of sight). The department Electrical Field Unit (EFU) shall install State-furnished Autoscope video detection equipment in the traffic signal control cabinet.

Install the Traffic Signal Terra Power Cable 18/3 to run continuously (without splices) from the traffic signal cabinet plus an additional 10 feet to the handhole or base. Leave 10 feet of cable in each pull box. Install the camera manufacturer's connector cable whip from the camera to the handhole or base.

Mark each end of the lead appropriately to indicate the equipment label (i.e. VID1, VID2, etc.). Splice, solder and shrink wrap the Terra power cable to the camera manufacturer's cable whip. Allow 3 feet of slack on each cable.

Notify department's Electrical Shop at (414) 266-1170 upon completion of the Monotube and Luminaire arm installation of the Traffic Signal Terra Power Cable 18/3, cable whip and camera at each intersection.

The department will provide notification of the video detection system vendor and provide the vendor's contact information. Coordinate directly with the department's video detection system vendor to arrange for the vendor to program the video detection. Notify the department and vendor at least five working days prior to the date of programming.

D Measurement

The department will measure Transporting and Installing State Furnished Autoscope Video Detection System (Location) as a single lump sum unit of work for each intersection, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.17	Transporting and Installing State Furnished Autoscope Video Detection System USH 41/45 SB Ramps at CTH Q	LS
SPV.0105.18	Transporting and Installing State Furnished Autoscope	LS

Payment is full compensation for transporting and installing the Intersection Autoscope Video Detection System, Traffic Signal Terra Power Cable 18/3, cable whips, mounting hardware, and cameras; and for arranging for and providing programming by the vendor.

70. Transporting and Installing State Furnished Radar Detection System, USH 41/45 SB Ramps at STH 167, Item SPV.0105.19; USH 41/45 NB Ramps at STH 167, Item SPV.0105.20.

A Description

This special provision describes the transporting and installing of department furnished Radar Detection System for installation on monotube poles or arms.

B Materials

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

C Construction

Coordinate the locations of the radar units with the department's electrical personnel prior to installation. Install the department furnished pole/arm mounting brackets, extension arms (if required), and radar units per manufacturer recommendations. Install the power and communication cables to run continuously (without splices) from the traffic signal cabinet to the radar units plus an additional 16 feet in each pull box and an extra 10-feet in the monotube pole handhole. Terminate the ends of the cables, if required, and make all connections to the radar units. The EFU will install all required cabinet equipment in the traffic signal control cabinet. Make all final cable connections in the traffic signal cabinet.

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

Notify department's Electrical Shop at (414) 266-1170 upon completion of the installation.

The department will provide notification of the radar detection system vendor and provide the vendor's contact information. Coordinate directly with the department's radar detection system vendor to arrange for the vendor to program the radar detection system on-site. Notify the department and vendor at least five working days prior to the date of programming. Assist the department and vendor with adjusting the radar units during the radar system programming.

D Measurement

The department will measure Transporting and Installing State Furnished Radar Detection System (Location) as a single lump sum unit of work for each intersection, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.19	Transporting and Installing State Furnished Radar Detection System USH 41/45 SB Ramps at STH 167	LS
SPV.0105.20	Transporting and Installing State Furnished Radar Detection System USH 41/45 NB Ramps at STH 167	LS

Payment is full compensation for transporting and installing the radar detection system, cable, mounting hardware, and radar units; arranging for and providing programming by the vendor; and for assisting the department and vendor during the radar system programming.

71. Install Fiber Optic Communications in Cabinet, USH 41/45 SB Ramps at CTH Q, Item SPV.0105.21; USH 41/45 NB Ramps at CTH Q, Item SPV.0105.22; USH 41/45 SB Ramps at STH 167, Item SPV.0105.23; USH 41/45 NB Ramps at STH 167, Item SPV.0105.24.

A Description

This special provision describes installing fiber optic communications equipment in traffic signal cabinets.

B Materials

The department will furnish pre-terminated fiber optic patch panels and managed Ethernet switches. The materials will be provided with the traffic signal cabinet. The patch panels will have pre-terminated fiber optic cable pigtails. Provide two each 1-meter lengths of ST-ST single mode fiber jumper (2 fibers per jumper) from the patch panel to the Ethernet switch. Provide a 1-meter length of CAT-5e cable from the Ethernet switch to the controller. Provide a 1-meter length of CAT-5e cable from the Ethernet switch to the Interface Panel. CAT-5e patch cords shall have factory pre-terminated RJ45 / 8P8C connectors on both ends per TIA/EIA T568B. Provide all patch panel, Ethernet switch, and Interface Panel attachment hardware.

Provide a 14 AWG XLP insulated, stranded, copper, 600 volt AC locate wire through the conduit run from the communication vault to the traffic signal cabinet. Connect the locate wire by using a silicone filled wire nut at each pull box, vault or other access point. Alternatively, use a single wire through the access points, leaving a 6 foot coil in each pull box, vault or other access point for splicing. All material under this item shall meet the requirements of standard spec 655.

C Construction

Install the patch panel and Ethernet switch on the side of the traffic signal cabinet opposite the electrical service at a location as approved by the engineer. With approval by the engineer, the Ethernet switch may be placed on a shelf near the patch panel. Install the pre-

terminated fiber optic cable in conduit from the patch panel to the communication vault as specified in standard spec 678.3.1. Fiber optic cable ends shall be covered securely to protect open ends during installation in raceways. Leave the remainder of the fiber optic cable coiled in the communication vault.

Install the fiber jumpers and CAT-5e cable and provide a communications link from the communication vault to the controller. Install the CAT5-e cable from the Interface Panel to the Ethernet switch.

Connect the locate wire by using a wire nut at each access point. Alternatively, use a single wire through the access points.

D Measurement

The department will measure Install Fiber Optic Communications in Cabinet (Location) as a single lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.21	Install Fiber Optic Communications in Cabinet USH 41/45 SB Ramps at CTH Q	LS
SPV.0105.22	Install Fiber Optic Communications in Cabinet USH 41/45 NB Ramps at CTH Q	LS
SPV.0105.23	Install Fiber Optic Communications in Cabinet USH 41/45 SB Ramps at STH 167	LS
SPV.0105.24	Install Fiber Optic Communications in Cabinet USH 41/45 NB Ramps at STH 167	LS

Payment is full compensation for installing pre-terminated patch panels, Ethernet switches, and fiber optic cable in conduit; furnishing and installing attachment hardware, fiber jumpers, CAT-5e cable, and locate wire.

72. Remove Loop Detector Wire and Lead-in Cable, USH 41/45 SB Ramps at CTH Q, Item SPV.0105.25; USH 41/45 NB Ramps at CTH Q, Item SPV.0105.26; USH 41/45 SB Ramps at STH 167, Item SPV.0105.27; USH 41/45 NB Ramps at STH 167, SPV.0105.28.

A Description

This special provision describes removing loop detector wire and lead-in cable at the USH 41/45 SB Ramps and CTH Q, USH 41/45 NB Ramps and CTH Q, USH 41/45 SB Ramps and STH 167, USH 41/45 NB Ramps and STH 167. Removal will be in accordance to standard spec 204, as shown in the plans, and as hereinafter provided.

B (Vacant)

C Construction
Notify the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to the removal of the loop detector wire and lead-in cable.

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

D Measurement
The department will measure Remove Loop Detector Wire and Lead-in Cable as a single lump sum unit of work for each intersection, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.25	Remove Loop Detector Wire and Lead in Cable, USH 41/45 SB Ramps at CTH Q	LS
SPV.0105.26	Remove Loop Detector Wire and Lead in Cable, USH 41/45 NB Ramps at CTH Q	LS
SPV.0105.27	Remove Loop Detector Wire and Lead in Cable, USH 41/45 SB Ramps at STH 167	LS
SPV.0105.28	Remove Loop Detector Wire and Lead in Cable, USH 41/45 NB Ramps at STH 167	LS

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

73. Remove Traffic Signals, USH 41/45 SB Ramps at CTH Q, Item SPV.0105.29; USH 41/45 NB Ramps at CTH Q, Item SPV.0105.30; USH 41/45 SB Ramps at STH 167, Item SPV.0105.31; USH 41/45 NB Ramps at STH 167, SPV.0105.32.

A Description
This special provision describes removing existing traffic signals at the intersection of USH 41/45 SB Ramps and CTH Q, USH 41/45 NB Ramps and CTH Q, USH 41/45 SB Ramps and STH 167, USH 41/45 NB Ramps and STH 167 in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction
Arrange for the de-energizing of the traffic signals with the local electrical utility after receiving approval from the engineer that the existing traffic signals can be removed.

Notify the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to the removal of the traffic signals. Complete the removal work as soon as possible following shut down of this equipment.

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

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

Department forces will remove the signal cabinet from the footing. The signal cabinet and associated signal cabinet equipment will be removed from the site by department forces and will remain the property of the department.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.29	Remove Traffic Signals USH 41/45 SB Ramps at CTH Q	LS
SPV.0105.30	Remove Traffic Signals USH 41/45 NB Ramps at CTH Q	LS
SPV.0105.31	Remove Traffic Signals USH 41/45 SB Ramps at STH 167	LS
SPV.0105.32	Remove Traffic Signals USH 41/45 NB Ramps at STH 167	LS

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

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74. Temporary Non-Intrusive Vehicle Detection System for Intersections, USH 41/45 SB Ramps at CTH Q, Item SPV.0105.33; USH 41/45 NB Ramps at CTH Q, Item SPV.0105.34; USH 41/45 SB Ramps at STH 167, Item SPV.0105.35; USH 41/45 NB Ramps at STH 167, SPV.0105.36.

A Description

This work shall consist of furnishing, installing, maintaining and placing into operation a temporary non-intrusive vehicle detection system (NIVDS) as shown on the plans, and as directed by the engineer in the field.

B Materials

This specification sets forth the minimum requirements for a system that detects vehicles on a roadway and provides detection outputs to a traffic signal controller. The materials shall also include all brackets, mounting hardware, cable, terminations, interface panels, and all other incidentals for the installation of the non-intrusive vehicle detection equipment. This equipment shall meet the NEMA environmental, power and surge ratings as set forth in NEMA TS2 specifications.

All detection equipment, components, and terminations supplied under this item shall be fully compatible with the temporary traffic signal controller supplied for the project. The system architecture shall fully support Ethernet networking of system components. All required interface equipment needed for transmitting and receiving data shall be provided with the NIVDS.

The NIVDS shall provide flexible detection zone placement anywhere and at any orientation. Preferred detector configurations shall be detection zones placed across lanes of traffic for optimal count accuracy, detection zones placed parallel to lanes of traffic for optimal presence detection accuracy of moving or stopped vehicles. Detection zones shall be able to be overlapped for optimal road coverage.

C Construction

The temporary NIVDS shall be installed by supplier factory-certified installers and as recommended by the supplier and documented in installation materials provided by the supplier.

In the event, at installation or turn on date, a noticeable obstruction is present in line with the detection zone(s), the contractor shall be obligated to advise the engineer before setting the zone.

The non-intrusive vehicle detection system, as shown in the traffic signal construction plans, shall be complete, in place, tested, and in full operation during each stage of construction.

Maintain all temporary vehicle detection zones as the plans show or as the engineer directs. The temporary vehicle detection zones shall be set near the vicinity and with approximate distance from the stop bar as shown on the plans. Check temporary vehicle detection zones every other week and at the opening of each stage of temporary traffic signal operation to ensure that they are working properly and aimed properly. Periodic adjustment of the detection zones and/or moving of the temporary vehicle detection sensors may be required due to changes in traffic control, staging, or other construction operations.

Ensure the non-intrusive vehicle detection system stays in clean working order. Periodic cleaning of the equipment may be required due to dirt and dust build-up.

D Measurement

The department will measure Temporary Vehicular Video Detection System for Intersections (Location) as a single lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.33	Temporary Non-Intrusive Vehicle Detection System for Intersections, USH 41/45 SB Ramps at CTH Q	LS
SPV.0105.34	Temporary Non-Intrusive Vehicle Detection System for Intersections, USH 41/45 NB Ramps at CTH Q	LS
SPV.0105.35	Temporary Non-Intrusive Vehicle Detection System for Intersections, USH 41/45 SB Ramps at STH 167	LS
SPV.0105.36	Temporary Non-Intrusive Vehicle Detection System for Intersections, USH 41/45 NB Ramps at STH 167	LS

Payment is full compensation for furnishing and installing the temporary non-intrusive vehicle detection system, including cabling, mounting brackets, mounting hardware, terminations, interface panels, testing and set up; for periodic checking and resetting of detection zones; for periodic cleaning for dirt and dust build-up; and for removing all equipment at the completion of the project.

75. Removing Concrete Barrier Transition Special, Item SPV.0105.37.

A Description

This special provision describes the sawing, breaking, and removing of the existing sloped concrete barrier special from approximately Station 350+81 to the north end of the concrete barrier.

B (Vacant)

C Construction

Saw and remove the concrete barrier special as shown on the plans. The contractor becomes the owner of the removed concrete barrier special and is responsible for the disposal as specified for disposing of materials under standard spec 204.3.1.3.

D Measurement

The department will measure Removing Concrete Barrier Special as a single lump sum unit of work, acceptably removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.37	Removing Concrete Barrier Special	LS

Payment is full compensation for sawing, breaking, removing, cleaning, and disposing of materials.

76. Proof-Rolling Existing Base, Item SPV.0170.01.

A Description

This special provision describes the testing of the stability of the existing base course and underlying earth subgrade by rolling with a tri-axle dump truck, the restoration of any soft or yielding areas evidenced by the proof-rolling, and retesting as determined by the engineer.

B Materials

Fully load a tri-axle dump truck, or other engineer-approved equipment, to within 3 tons of the vehicle legal load limit and provide a minimum gross vehicle weight of 30 tons. Uniformly inflate all tires to the pressure recommended by the manufacturer for the applicable wheel load.

C Construction

Remove existing paved shoulder and base to the depth required on the plans, and prepare foundation for asphaltic shoulders prior to proof-rolling. Proof-roll exposed surface of existing base course at normal walking speed under the observation of the engineer or representative thereof.

Roll the existing base course a width equal to that of the finished base. Make multiple passes throughout the length of the subgrade test area, as allowed by existing shoulder width and geometry. The engineer will determine the number and location of passes required such that any wheel track will be within 3 to 4 feet of the adjacent wheel track.

Repair and consolidate any soft or yielding areas or depressions evidenced under the action of the test rolling to withstand retesting. Excavate any unstable material (existing base course and underlying subgrade) from the shoulder bed and replace with selected materials, including breaker run and Base Aggregate Dense 1 ¼ Inch. Correct any yielding areas discovered during the test rolling operations prior to placing HMA pavement. Perform corrective work as directed by the engineer and in accordance to the standard specifications.

D Measurement

The department will measure Proof-Rolling Existing Base by the station along the roadway centerline or reference line, acceptably completed. The department will measure two or more separate shoulders by the station along each roadway associated with the shoulders as designated on the plans.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0170.01	Proof-Rolling Existing Base	STA

Payment is full compensation for performing the Proof-Rolling Existing Base, for retesting as determined by the engineer, and for restoration of the surface of the existing base aggregate. Such restoration shall meet the requirements of "prepare foundation for asphaltic shoulders" if said operation was performed prior to proof rolling.

77. Resin Binder High Friction Surface Treatment, Item SPV.0180.01.

A Description

This special provision describes providing a high friction surface treatment (HFST) composed of aggregate in a resin binder on HMA or concrete pavements.

B Materials

B.1 Resin Binder

Supply a two-part thermosetting resin binder which is compatible with the pavement type, bonds to the pavement surface, holds the aggregate firmly in place in a broad range of climates including below-freezing temperatures, and meets the requirements specified in Table 1. Supply a primer if recommended by the resin binder manufacturer.

Table 1. Resin Binder Properties

Property	Requirements	Test Method*
Viscosity	7 – 30 poises	ASTM D2556 1-pint specimen
Gel Time	10-minute minimum	ASTM C881 60g mass
Ultimate Tensile Strength	2,000 – 5,000 psi @ 7 days	ASTM D638 Type 1 specimen
Elongation at Break	30% - 70% @ 7 days	ASTM D638 Type 1 specimen
Compressive Strength	≥ 1000 psi @ 3 hrs and ≥ 5000 psi @ 24 hours	ASTM D695**
Water Absorption	≤ 1.0 % @ 24-hr	ASTM D570 24-hr immersion
Shore D Hardness	60 – 80 @ 7 days	ASTM D2240*** Type 1 precision, Type D method
Cure Rate	≤ 3 hours (Dry Through Time)	ASTM D1640 50-55 wet mil thickness***
Adhesive Strength	250 psi @ 24 hours or 100% substrate failure	ASTM C1583***

* Prepare samples per manufacturer's recommendation; cure all specimens at 73 ± 2° F and at 50 ± 2° F; and test all specimens at 73 ± 2° F

** 2” x 2” cubes made of 2.75 parts of 20-30 mesh sand to 1 part mixed resin binder; use plastic inserts in oversized molds to produce 2” cubes
*** Conduct testing on applicable pavement type

B.2 Aggregate
Furnish calcined bauxite aggregate that is fractured or angular in shape; resistant to polishing and crushing; clean and free of surface moisture; free from silt, clay, asphalt, or other organic materials; compatible with the resin binder; and meet the properties and gradation requirements in Tables 2 and 3. Check with resin binder manufacturer for any compatibility requirements or concerns.

Table 2. Aggregate Properties

Property	Requirements	Test Method
Moisture Content	≤ 0.2%	AASHTO T 255
Fine Aggregate Angularity	≥ 45%	AASHTO T 304, Method A
Micro-Deval	≤ 15% loss	ASTM D7428
LA Wear	≤ 10% loss @ 100 revolutions and ≤ 25% loss @ 500 revolutions	AASHTO T 96
Freeze-Thaw Soundness	≤ 9% loss @ 50, 16, or 25 cycles using Procedure A, B, or C, respectively	AASHTO T 103

Table 3. Aggregate Gradation (AASHTO T27)

Sieve Size	% Passing by Weight
No. 4	100
No. 6	95
No. 16	0-5
No. 30	0-1

B.3 Approval of High Friction Surface Treatment
A minimum of 20 working days before applying HFST, submit product data sheets and specifications from the manufacturer, and a certified test report from an independent laboratory verifying that the resin binder and the calcined bauxite aggregate meet all the requirements specified in Tables 1, 2 and 3. Documents must be dated within three years.

If resin binder has not been previously used in Wisconsin, also submit a list of at least five reference projects where the resin binder has been used for similar applications and in locations that have similar climatic conditions as Wisconsin. Supply a description of the projects along with contact information of the facility owner.

If the engineer requests, provide samples of the resin binder and aggregate for department testing before applying HFST.

C Construction

C.1 General

The contractor will provide documentation showing HFST application experience from at least three previous projects completed for WisDOT or other agencies.

Conduct a meeting with the resin binder manufacturer representatives before applying HFST to establish procedures for maintaining optimum working conditions and coordination of the work. Submit recommended application procedures, including quality control practices, to the engineer for approval. Ensure that a resin binder manufacturer representative is on site to provide technical assistance and quality assurance during surface preparation and for application of HFST.

Ensure that the resin binder components maintain their original properties during storage and handling. Store all aggregate in a dry environment and protect from contaminants on the job site.

C.2 Pavement Surface Preparation

C.2.1. Pavement Surface Repair

Remove visibly unsound or disintegrated areas of the pavement surface as the plans show or the engineer directs.

Check with resin binder manufacturer to ensure that products used for pavement repairs or patches are compatible with the resin HFST. Ensure that any new concrete or repairs are fully cured before placing the HFST.

C.2.2 Surface Preparation

Cover and protect utilities, drainage structures, expansion joints on bridge decks, and other structures within or adjacent to the application location to prevent materials from adhering to or entering those structures.

Remove pavement markings that are within the treatment area. Cover existing pavement markings adjacent to the application if they are to remain in place.

Seal all joints and cracks, or any portion of cracks, that are greater than 1/4 inch wide, with a joint sealant conforming to ASTM D6690. Apply sealant flush with, or just below, the pavement surface. Do not overfill and ensure excess joint sealant is not visible on the pavement surface.

After all pavement repairs or patches have completely cured, and no more than 24 hours before HFST application, prepare a concrete pavement surface by shot blasting to roughen the surface texture. Ensure the pavement surface has no grease, oil, curing compound, loosely bonded mortar, pavement marking, or other foreign matter resting on the pavement surface.

Completely remove any grease, oil, pavement marking, or other foreign matter resting on an HMA pavement surface that could prevent proper bonding of the resin binder by shot blasting. Shot blast entire HMA pavement surfaces that are less than 30 days old prior to cleaning and installing HFST.

Sufficiently clean HMA and concrete pavement surfaces by vacuum-sweeping and blowing, with oil-free compressed air, just before applying HFST. Compressors must be equipped with functioning oil/water separators. Cleaning must be done the same day that HFST will be applied. Ensure the surface is clean, completely dry, and free of all dust, oil, debris and other material that might interfere with the bond between the resin binder and the existing pavement surface.

If the engineer requires additional verification of adequate surface preparation of the pavement, test the bond strength according to ASTM C1583. The surface is acceptable if the tensile bond strength is greater than or equal to 250 psi, or failure is in the substrate. Repeat shot blasting, cleaning, and testing, if needed, until passing test results are obtained or the surface is acceptable to the engineer.

Keep vehicles and unnecessary equipment off the cleaned surface; only allow HFST application equipment on the clean surface. Apply HFST as soon as possible after pavement surface preparations are completed.

Abide by the established quality control practices and adhere to any additional manufacturer recommendations for surface preparation. Request that the engineer inspect and approve the pavement surface immediately prior to placing the HFST.

C.3 Application of the HFST

Do not apply the HFST if any of the following exists:

- Pavement surface is wet, damp, or has received rainfall in the previous 24 hours.
- Pavement surface is not sufficiently clean.
- Ambient air or pavement surface temperature is below 50° F or below the manufacturer's recommendations
- If the anticipated weather conditions would prevent adequate curing of the HFST.
- Rain is predicted before HFST completion or proper cure is achieved.
- Pavement preparation is inadequate or didn't pass pull-off test.

Close treatment areas to traffic until HFST is completely cured and pavement surface has been vacuum-swept.

Construct HFST to the full width of the existing pavement surface, or as the plans show or engineer directs. Extend the HFST application 2'-3' into the shoulders if application site is on a curve, apply as a single layer 1/8 inch to 1/4 inch thick.

Apply a primer to the pavement surface if recommended by the resin binder manufacturer, and according to their application recommendations. Abide by the established quality control practices and adhere to any additional manufacturer recommendations for HFST application.

Blend and mix the resin binder components at the manufacturer's specified ratio using equipment capable of providing the desired results.

Apply the resin binder uniformly over the pavement surface manually or with automated equipment at a uniform thickness of 50-65 mils (25-32 ft2/gal). Use enough resin to cover the pavement surface and sufficiently embed half the thickness of the aggregate; do not apply so much that it covers the aggregate and creates a slick surface. Adjust application rate, as needed, based on the pavement surface type, profile, and condition.

If using automated equipment, ensure that the equipment features positive displacement, volumetric metering, and is capable of storing, mixing, heating, monitoring, and distributing the binder components at the proper mix ratio. Adjust the pressure and the speed of the equipment to achieve the proper application thickness. If applying the binder by hand, use a serrated edged squeegee to spread the resin binder and provide uniform coverage at the proper thickness.

Do not contaminate the wet binder or allow the binder material to separate or cure, and impair bonding of the aggregate.

Immediately after applying the resin binder, distribute a sufficient quantity of dry calcined bauxite aggregate to completely cover the resin binder by hand broadcasting or by using a standard chip spreader or equivalent machine. Ensure aggregate is placed within five minutes of the resin binder placement, before it begins to cure. When broadcasting, sprinkle or drop the aggregate onto the resin binder vertically. Do not distribute aggregate in a way that will cause it to roll in the resin binder before coming to a rest; do not push the aggregate into position with a broom or any other hand tool. If using a chip spreader, the machine shall follow closely behind the crew or equipment applying the resin binder. Immediately cover any visible wet or bare spots, or areas with excessive binder, with additional calcined bauxite aggregate before the resin binder begins to set.

Allow the HFST to properly cure, adhering to manufacturer recommendations for minimum cure times at applicable temperatures.

After the HFST is fully cured, remove excess loose surface aggregate by sweeping, blowing, or vacuuming. Do not tear or otherwise damage the surface. Excess calcined bauxite aggregate that is recovered by a vacuum sweeper can be reused if clean, uncontaminated and dry. Remove and replace damaged areas or areas with excess or insufficient aggregate coverage. Clean expansion joints, utilities, and drainage structures of all debris before opening to traffic.

Additionally, within 3 to 7 days after opening to traffic, vacuum sweep the pavement surface to remove loosened aggregate from the high friction surface area, the shoulders, and any other areas within and immediately adjacent to the HFST site.

D Measurement

The department will measure Resin Binder High Friction Surface Treatment by the square yard acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Resin Binder High Friction Surface Treatment	SY

Payment for Resin Binder High Friction Surface Treatment is full compensation for testing materials; for preparing the pavement surface; for providing the HFST; for cleanup; and for vacuum sweeping and disposing of excess material after the completion and again 3 to 7 days after completion.

The department will pay for pavement repairs, joint and crack sealing, and traffic control separately under other contract bid items or, absent the appropriate bid items, as extra work.

78. QMP Base Aggregate Dense 1 1/4-Inch Compaction, Item SPV.0195.01.

A Description

(1) This special provision modifies the compaction and density testing documentation requirements of work done under the Base Aggregate Dense 1 1/4-inch bid items. Conform to standard spec 305 as modified in this special provision and to the contract QMP Base Aggregate article.

(2) Provide and maintain a quality management program. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process related to construction of dense graded base which meets all the requirements of this provision.

(3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:
http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm

(4) This special provision applies to Base Aggregate Dense 1 1/4-inch material placed on both the mainline traveled way and its adjacent mainline shoulders in accordance to the typical finished sections. Unless otherwise specified by the contract; all Base Aggregate Dense 1 1/4-inch material placed on side roads, private and public entrances, ramps, tapers, turn lanes, and other locations not described as the mainline

traveled way and its adjacent mainline shoulders is exempt from the compaction and density requirement modifications and testing contained within this special provision.

B (Vacant)

C Construction

C.1 General

(1) The engineer shall approve the grade prior to placement of the base. Approval of the grade shall be in accordance to applicable provisions of the Standard Specifications.

Add the following to standard spec 305.3.2.2:

(3) Compact the 1 1/4-inch dense graded base to a minimum of 93.0% of the material target density. Ensure that adequate moisture is present during placement and compaction operations to prevent segregation and to help achieve compaction. The material target density will be identified using one of the following methods:

- For 1 1/4-inch dense graded base composed of ≤20% reclaimed asphaltic pavement (RAP) or crushed concrete (RCA); as determined by classification of material (aggregate or RAP and/or RCA), and percentage by weight of each material type, retained on the No. 4 Sieve; maximum dry density as determined by AASHTO T-180, Method D, with correction for coarse particles as determined by AASHTO T224; modified to require determination of Bulk Specific Gravity (G_m) in accordance to AASHTO T 85, Bulk Specific Gravities determined in accordance to standard spec 106.3.4.2.2 for aggregate source approval may be utilized

- For 1 1/4-inch dense graded base composed of >20% RAP or RCA; as determined by classification of material (aggregate or RAP and/or RCA), and percentage by weight of each material type, retained on the No. 4 Sieve; the contractor's option of:
- Maximum dry density as determined by AASHTO T-180, Method D, with correction for coarse particles as determined by AASHTO T224; modified to require determination of Bulk Specific Gravity (G_m) in accordance to AASHTO T 85.

- Maximum wet density as determined by AASHTO T-180, Method D, modified to define *Maximum Density* as the wet density in pounds per cubic foot of soil at optimum moisture content under the Method D specified compaction, and with correction for coarse particles as determined by AASHTO T224; modified to require determination of Bulk Specific Gravity (G_m) in accordance to AASHTO T 85.

- Average of 10 random control strip wet density measurements as described in section C.2.4.1.

(4) Base aggregate dense 1 1/4-inch will be accepted for compaction on a target density lot basis.

- Field density tests on materials using contractor elected target density methods C.1(4).2.b or C.1(4).2.c will not be considered for lot acceptance on the basis of compaction under the requirements of this provisions until the moisture content of the in-place material is less than 2.0 percentage points above of the maximum wet density optimum moisture or 2.0 percentage points of the average moisture content of the 10 density tests representing a control strip, respectively.

C.2 Quality Management Program

C.2.1 Quality Control Plan

(1) Submit a comprehensive written quality control plan to the engineer no later than 10 business days before placement of material. Do not place any dense graded base before the engineer reviews and accepts the plan. Construct the project as the plan provides.

(2) Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory 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 process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.

C.2.2 Personnel

(1) Perform the quality control sampling, testing, and documentation required under this provision using technicians certified by the department's Highway Technician Certification Program (HTCP). Have a HTCP Nuclear Density Technician I, or ACT certified technician, perform field density and field moisture content testing.

(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.

C.2.3 Equipment

(1) Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

(2) Furnish nuclear gauges from the department's approved product list at:
http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm

(3) Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

(4) For all target density methods; conform to ASTM D 6938 and CMM 8.15 for wet density testing and gauge monitoring methods.

(5) For the specified target density method C.1(4).1 compute dry densities for dense graded base composed of ≤20% RAP or RCA, according to ASTM D 6938.

(6) For contractor elected target density method C.1(4).2.a compute dry densities of dense graded base composed of >20% RAP or RCA using a moisture correction factor and the nuclear wet density value. Determine the moisture correction value; for each Proctor produced under the requirements of C.2.4.2; using the moisture bias, as shown in CMM 8.15.4.1, except the one-point Proctor tests of the 5 random tests is not required. Determine natural moistures in the laboratory.

- Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Backscatter may be used only if the material being tested cannot reliably maintain an undistorted Direct Transmission test hole. Direct transmission tests must be performed at the greatest possible probe depth of 2 inches, 4 inches, or 6 inches; not to exceed the depth of the compacted layer being tested. Perform each test for 4 minutes of nuclear gauge count time.

C.2.4 Contractor Testing

(1) Perform compaction testing on the mainline dense graded base material, as defined by A.(4). Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians as required in C.2.2. Conform to CMM 8.15 for testing and gauge monitoring methods.

(2) Select test sites randomly using ASTM Method D3665. Do not test less than 1 ½ feet from the unsupported edge of the dense graded base layer. Test sites must be located within the mainline traveled way or the traveled way's adjacent mainline shoulder.

C.2.4.1 Contractor Required Quality Control (QC) Testing

(1) Conduct testing at a minimum frequency of one test per lot. A lot will consist of each 1500 tons, of each layer with a minimum lift thickness of 2", of base aggregate dense 1 1/4-inch material placed; regardless of location of placement. Each lot of in-place mainline, as defined by A.(4), 1 1/4-inch base aggregate dense material will be accepted for compaction when the lot field density meets the required minimum 93.0% of target density, or for lots not achieving 93.0% of target density in accordance to C.2.6.

(2) Notify the engineer, if a lot field density test falls below the required minimum value. Document and perform corrective action in accordance to C.2.6. Deliver documentation of all compaction testing results to the engineer at the time of testing.

C.2.4.1.1 Target Density Determination

C.2.4.1.1.1 Density Control Strip Method

(1) For contractor elected target density method C.1(4).2.c; construct a control strip for each layer of placement to identify the target wet density for the base aggregate dense material. The control strip construction and density testing will occur under the direct observation and/or assistance of the department QV personnel.

(2) Unless the engineer approves otherwise, construct control strips to a minimum dimension of 300 feet long and one full lane width.

(3) Completed control strips may remain in-place to be incorporated into the final roadway cross-section.

(4) Construct additional control strips, at a minimum, when:

- The gradation on any one sieve differs from the original gradation test result for that sieve, by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to construct the control strip.

- The source of base aggregate changes.

- The percentage of blended recycled materials; from classification of material retained on the No. 4 sieve; in the original gradation test, differs by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to construct the control strip.

- The layer thickness changes in excess of 2.0 inches.

- The percent target density exceeds 103.0% on two consecutive density measurements.

- Construct control strips using equipment and methods representative of the operations to be used to place and compact the remaining 1 1/4–inch base aggregate dense material. Wet the base, as mutually agreed upon by the contractor and engineer, to obtain and/or maintain adequate moisture content to ensure proper compaction. Discontinue water placement if the base begins to exhibit signs of saturation or instability.

- After compacting the control strip with a minimum of 2 passes, mark and take density measurements at 3 random locations, at least 1 ½ feet from the edge of the base. Subsequent density measurements will be taken at the same 3 locations.

- After each subsequent pass of compaction equipment over the entirety of the control strip, take density measurements at the 3 marked locations. Continue compacting and testing until the increase in density measurements is less than 2.0 lb/ft^3, or the density measurements begin to decrease.

- Upon completion of control strip compaction, take 10 randomly located density measurements within the limits of the control strip, at least 1 ½ feet from the edge of the base. The final measurements recorded at the 3 locations under article C.2.4.1.1(6) may be included as 3 of the 10 measurements. Average the 10 measurements to obtain the control strip target density and target moisture for use in contractor elected method C.1(4).2.c.

C.2.4.1.1.2 Maximum Wet and/or Dry Density Methods

(1) For contractor elected target density methods C.1(4).2.a, C.1(4).2.b, and contractually specified target density method C.1(4).1; perform one gradation and 5-point Proctor test before placement of 1 1/4-inch dense graded base. Perform additional gradations every 3000 tons. If sampling requirements are identical, samples/testing performed for the QMP Base Aggregate specification may be used to fulfill the gradation testing requirements of this specification.

(2) Perform additional 5-point Proctor tests, at a minimum, when:

- The gradation on any one sieve differs from the original gradation test result for that sieve, by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to create a 5-point Proctor. Each 5-point Proctor test will remain valid for any material with gradation for all sieves within 10.0 percentage points of that Proctor's original gradation test.

- The source of base aggregate changes.

- The percentage of blended recycled materials ; from classification of material retained on the No. 4 sieve; in the original gradation test, differs by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to construct the control strip.

- Percent target density exceeds 103.0% on two consecutive density tests.

(3) Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

(4) 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.

C.2.4.2 Optional Contractor Assurance (CA) Testing

(1) CA Testing is optional and is conducted to further validate QC testing. The contractor may submit recorded CA data to provide additional information for the following:

- Process control decisions
- Troubleshooting possible sampling, splitting, or equipment problems.
- Limiting liability and/or corrective action limits as a result of QV or QC testing. These provisions do not supersede the department's rights under 107.16

- CA testing used to limit liability and/or corrective action limits must conform to all the requirements of required contractor QC testing, with the exclusion of a required test frequency.

C.2.5 Department Testing

C.2.5.1 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 2 business days after the department obtains the sample.

C.2.5.2 Quality Verification (QV) Testing

(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 C.2.2 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 at the minimum frequency of 30% of the required gradation, density and proctor contractor tests.

(3) The department will locate gradation, proctor and nuclear density test samples, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will split each QV sample, test half for QV, and retain the remaining half for 7 calendar days.

(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 utilize control strip target density testing results in lieu of QV proctor sampling and testing when the contractor elected C.1(4).2.c target density method is used.

(6) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If QV test results are nonconforming, take corrective actions in accordance to C.2.6 until the requirements of this special provision are met. Differing QC and QV nuclear density values of more than 2.0 pcf will be investigated and resolved.

C.2.5.3 Independent Assurance (IA)

(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. 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 C.2.5.4.

C.2.5.4 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 shall review the data, examine data reduction and analysis methods, evaluate sampling and testing methods/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 project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, 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.2.6 Corrective Action

Lots not achieving 93.0% of target density may be addressed and accepted for compaction in accordance to the requirements of this section. Unless otherwise stated, the actions taken to address an unacceptable lot must be applied to the entire lot.

Passing CA test results in accordance to section C.2.4.2, will reduce the limits of lot investigations and/or corrective actions.

At no additional cost to the department, investigate the moisture content of material in an unacceptable lot. Moisture content testing/samples collected under the QC and/or QV testing articles of this specification may be used to complete this investigation. Obtain moisture content readings in accordance to ASTM D 6938. For material composed of >20% RAP or RCA, correct the moisture content with the moisture correction value using the moisture bias, as shown in CMM 8.15.4.1, except the one-point Proctor tests of the 5 random tests is not required.

Lots with moisture contents within 2.0 percentage points of optimum moisture for target density methods C.1(4).1, C.1(4).2.a, or C.1(4).2.b ; or within 2.0 percentage points of the target moisture content for target density method C.1(4).2.c; and exhibiting no signs of deflection when subjected to loading by the heaviest roller used in the placement and compaction operations; will be, at no additional cost to the department, compacted a minimum of one more pass using equipment and methods representative of the operations used to place and compact the base aggregate dense; and density tested at the same location (station and offset) as the failing QC and/or QV density tests. If the change in density exceeds 2.0 lb/ft^3 continue subsequent compactive efforts and density testing on that lot, at no additional cost to the department. If the change in density is less than or equal to 2.0 lb/ft^3, the lot is accepted as satisfying the compaction requirements of this provision.

Lots with moisture contents within 2.0 percentage points of optimum moisture for target density methods C.1(4).1, C.1(4).2.a, or C.1(4).2.b; or within 2.0 percentage points of the target moisture content for target density method C.1(4).2.c; and exhibiting signs of

deflection when subjected to loading by the heaviest roller used in the placement and compaction operations; will be reviewed by the engineer. The engineer may request subgrade improvement methods, such as excavation below subgrade (EBS), installation of geotextile fabrics, installation of breaker run material or others to be completed and paid for in accordance to standard spec 301.5; or may request, at no additional cost to the department, an additional pass of compactive effort using equipment and methods representative of the operations used to place and compact the base aggregate dense and density test.

If, after an additional pass, the change in density at the same location (station and offset) as the failing QC and/or QV density tests exceeds 2.0 lb/ft^3 in a lot continue subsequent compactive efforts and density testing on that lot, at no additional cost to the department. If the change in density at the same location (station and offset) as the failing QC and/or QV density tests is less than or equal to 2.0 lb/ft^3, and subgrade improvement methods are not requested by the engineer, the lot is accepted as satisfying the compaction requirements of this provision.

If subgrade improvement methods are requested by the engineer, upon completion, including compaction of the restored base material, conduct a density test within the improved subgrade limits. This density test result will replace the prior field density value. If the lot field density equals or exceeds 93.0% of target density the lot is accepted as satisfying the compaction requirements of this provision. If the lot field density fails to achieve 93.0% of target density, at no additional cost to the department, compact the lot a minimum of one more pass using equipment and methods representative of the operations used to place and compact the base aggregate dense; and density test at the same location (station and offset) as the failing QC and/or QV density tests. If the change in density exceeds 2.0 lb/ft^3 continue subsequent compactive efforts and density testing on that lot, at no additional cost to the department. If the change in density is less than or equal to 2.0 lb/ft^3, the lot is accepted as satisfying the compaction requirements of this provision.

Lots with moisture contents in excess of 2.0 percentage points above or below optimum moisture for target density methods C.1(4).1, C.1(4).2.a, or C.1(4).2.b ; or within 2.0 percentage points of the target moisture content for target density method C.1(4).2.c; shall receive contractor performed and documented corrective action; including additional density testing; at no additional cost to the department.

Density tests completed subsequent to any corrective action will replace previous field density test results for that lot. Continue corrective actions until 93.0% of target density is achieved; or an alternate compaction acceptance criteria is met in accordance to this section.

Field moisture contents of materials tested using contractor elected target density methods C.1(4).2.b or C.1(4).2.c cannot exceed 2.0 percentage points of the optimum moisture content or 2.0 percentage points of the target moisture content, respectively. Density tests on materials using contractor elected target density methods C.1(4).2.b or C.1(4).2.c will not be considered for lot compaction acceptance until the moisture content of the

corresponding density test of the in-place material is less than 2.0 percentage points above of the optimum moisture content or 2.0 percentage points of the target moisture content, respectively.

D Measurement
The department will measure QMP Base Aggregate Dense 1 1/4-inch Compaction by the ton. The measured tons of QMP Base Aggregate Dense 1 1/4-inch Compaction equals the tons of Base Aggregate Dense 1 1/4-inch, acceptably completed, regardless of placement location and density testing eligibility.

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.0195.01	QMP Base Aggregate Dense 1 1/4-inch Compaction	TON

Payment is full compensation for performing compaction testing; for sampling and laboratory testing; and for developing, completing, and documenting the compaction quality management program. The department will pay separately for providing the aggregate under the Base Aggregate Dense 1 1/4-inch bid item.

79. Coarse Aggregate Mix for Stream Bed, Item SPV.0195.02.

A Description
Work under this item shall be done in accordance to standard spec 606, modified as follows:

Furnish and place the Coarse Aggregate Mix at the locations shown on the plans, or as directed by the engineer.

B Materials
Coarse Aggregate Mix material furnished and used in this work shall be natural, rounded, uncrushed coarse aggregate. The mix shall consist of roughly 75% number 2 stone and 25% 3/8-inch pea gravel, thoroughly mixed. The mix must be approved by the engineer prior to installation.

C Construction
Thoroughly compact the Coarse Aggregate Mix as construction progresses. The finished surface shall present an even, tight surface.

D Measurement
The department will measure Coarse Aggregate Mix for Stream Bed by the tons in place, acceptably completed. Only accepted work will be measured for payment and the computation of the quantity thereof will be based on the volume within the limiting dimensions designated on the plans, in the contract, or as established by the engineer.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.02	Coarse Aggregate Mix for Stream Bed	Ton

Payment is full compensation for furnishing and placing coarse aggregate mix.

ADDITIONAL SPECIAL PROVISION 1 (ASP 1)
FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS)
PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including "pipeline" activities. The core programs includes: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

TrANS is an employment program originally established in 1995 in Southeastern Wisconsin. Currently TrANS has expanded to include TrANS program locations to serve contractors in Southeast (Milwaukee and surrounding counties), Southcentral (Dane County and surrounding counties including Rock County), and most Northeastern Wisconsin counties from locations in Keshena, Rhinelander and surrounding far Northern areas. TrANS attempts to meet contractor's needs in other geographic locations as possible. It is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities and non-minorities as laborers and apprentices in the highway skilled trades. These candidate preparation and contractor coordination services are provided by community based organizations. For a list of the TrANS Coordinators contact the Disadvantaged Business Enterprise Office at (414) 438-4583 in Milwaukee or (608) 266-6961 in Madison. These services are provided to you at no cost.

I. BASIC CONCEPTS

Training reimbursements to employing contractors for new placements, rehires or promotions to apprentice of TrANS Program graduates will be made as follows:

1) **On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate.** At the rate of $5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.

   Eligibility and Duration: To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.

   Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 12 *(number)* TrANS Graduate(s) be utilized on this contract.

2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of $5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).

Eligibility and Duration: To the employing contractor, for the length of time the TrANS graduate is in apprentice status.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 5 *(number)* TrANS Apprentice(s) be utilized on this contract.

3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.

4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.

5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

I. RATIONALE AND SPECIAL NOTE

The $5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the $5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

NOTE: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

II. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-

OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

IV. *TRANS TRAINING*

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

V. APPRENTICESHIP TRAINING

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

(1) To increase the overall effectiveness of the State highway agencies' approved training programs.
(2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b*)* (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a*)* (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 3
DISADVANTAGED BUSINESS ENTERPRISE 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:

   Use the following link prior to June 19, 2015:
   http://www.dot.wisconsin.gov/business/engrserv/dbe-main.htm

   Use the following link beginning June 19, 2015:
   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

Use the following link prior to June 19, 2015:
http://app.mylcm.com/wisdot/Reports/WisDotUCPDirectory.aspx

Use the following link beginning June 19, 2015:
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

Use the following link prior to June 19, 2015:
http://www.dot.wisconsin.gov/business/engrserv/docs/dbe-trucking-notice.pdf

Use the following link beginning June 19, 2015:
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:

Use the following link prior to June 19, 2015:
http://www.dot.wi.gov/business/dbe/docs/policyreplacingdbe.pdf

Use the following link beginning June 19, 2015:
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		DBE Contractor Contact Person	
Phone:		Phone	
Fax:		Fax	
Email:		Email	

Please circle the jobs and items you will be quoting below

Proposal No.	1	2	3	4	5	6	7
County							

WORK DESCRIPTION:

Clear and Grub	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

We prefer quotes be sent via SBN but prime's preferred 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:

450.3.2.1 General

Replace the entire text with the following effective with the January 2015 letting:

(1) Do not place asphaltic mixture when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 36 F for upper layers or 32 F for lower layers unless the engineer allows in writing. The contractor should place HMA pavement for projects on or north of STH 29 between May 1 and October 15 inclusive and for projects south of STH 29 between April 15 and November 1 inclusive. Notify the engineer at least one business day before paving.

(2) Unless the contract specifies otherwise, conform to the following:

- Keep the road open to all traffic during construction.
- Prepare the existing foundation for treatment as specified in 211.
- Incorporate loose roadbed aggregate as a part of preparing the foundation, in shoulder construction, or dispose of as the engineer approves.

(3) Place asphaltic mixture only on a prepared, firm, and compacted base, foundation layer, or existing pavement substantially surface-dry and free of loose and foreign material. Do not place over frozen subgrade or base, or where the roadbed is unstable.

450.5 Payment

Replace the entire text with the following effective with the May 2015 letting:

(1) All costs of furnishing, maintaining, and operating the truck scale or other weighing equipment and furnishing the weigh tickets are incidental to the contract.

(2) Nonconforming material allowed to remain in place is subject to price adjustment under 105.3.2.

(3) Full-depth sawing to remove integrally placed safety edge where not required is incidental to the contract.

(4) The contractor is responsible for the quality of HMA pavement placed in cold weather. If because of an excusable compensable delay under 108.10.3, the engineer directs the contractor to pave when the temperature is less than 36 F for the upper layer or less than 32 F for lower layers, the department:

- Will relieve the contractor of responsibility for damage and defects the engineer attributes to cold weather paving.
- Will not assess disincentives for density or ride.

455.3.2.1 General

Replace the paragraphs one and two with the following effective with the January 2015 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 dry and reasonably free of loose dirt, dust, or other foreign matter. Do not apply if weather or surface conditions are unfavorable or before impending rains.

(2) Use tack material of the type and grade the contract specifies. The contractor may, with the engineer's approval, dilute tack material as allowed under 455.2.4. Provide calculations using the asphalt content as-received from the supplier and subsequent contractor dilutions to show that as-placed material has 50 percent or more residual asphalt content. Apply at 0.050 to 0.070 gallons per square yard, after dilution, unless the contract designates otherwise. The engineer may adjust the application rate based on surface conditions. Limit application each day to the area the contractor expects to pave during that day.

460.2.2.3 Aggregate Gradation Master Range

Replace paragraph one with the following effective with the December 2014 letting:

(1) Ensure that the aggregate blend, including recycled material and mineral filler, conforms to the gradation requirements in table 460-1. The values listed are design limits; production values may exceed those limits.

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

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

[1] 14.5 for E-0.3 and E-3 mixes.

[2] 15.5 for E-0.3 and E-3 mixes.

460.3.4 Cold Weather Paving

Add a new subsection as follows effective with the May 2015 letting:

460.3.4 Cold Weather Paving

460.3.4.1 Cold Weather Paving Plan

(1) Submit a written cold weather paving plan to the engineer at the preconstruction meeting. In that plan outline material, operational, and equipment changes for paving when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 40 F. Include the following:

- Use a department-accepted HMA mix design that incorporates a warm mix additive from the department's approved products list. Do not use a foaming process that introduces water into the mix.
- Use additional rollers.

(2) Engineer written acceptance is required for the cold weather paving plan. Engineer acceptance of the plan does not relieve the contractor of responsibility for pavement performance except as specified in 450.5(4).

460.3.4.2 Cold Weather Paving Operations

(1) Do not place asphaltic mixture when the air temperature approximately 3 feet above grade, in shade, and away from artificial heat sources is less than 40 F unless a valid engineer-accepted cold weather paving plan is in effect.

(2) If the national weather service forecast for the construction area predicts ambient air temperature less than 40 F at the projected time of paving within the next 24 hours, confirm or submit revisions to a previously engineer-accepted cold weather paving plan for engineer validation. Upon validation of the plan, the engineer will allow paving for the next day. Once in effect, pave conforming to the engineer-accepted cold weather paving plan for the balance of that work day or shift regardless of the temperature at the time of paving.

460.4 Measurement

Add paragraph two as follows effective with the January 2015 letting:

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

460.5.1 General

Revise paragraph one as follows effective with the January 2015 letting:

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

ITEM NUMBER	DESCRIPTION	UNIT
460.1100	HMA Pavement Type E-0.3	TON
460.1101	HMA Pavement Type E-1	TON
460.1103	HMA Pavement Type E-3	TON
460.1110	HMA Pavement Type E-10	TON
460.1130	HMA Pavement Type E-30	TON
460.1132	HMA Pavement Type E-30X	TON
460.1700	HMA Pavement Type SMA	TON
460.2000	Incentive Density HMA Pavement	DOL
460.4000	HMA Cold Weather Paving	TON

460.5.2.2 Disincentive for HMA Pavement Density

Revise paragraph two as follows effective with the January 2015 letting:

(2) The department will not assess density disincentives for pavement placed in cold weather because of a department-caused delay as specified in 450.5(4).

460.5.2.4 Cold Weather Paving

Add a new subsection as follows effective with the May 2015 letting:

460.5.2.4 Cold Weather Paving

(1) Payment for HMA Cold Weather Paving is full compensation for additional materials and equipment specified for cold weather paving under 460.3.4 including costs for preparing, administering, and following the contractor's cold weather paving plan. The department will not pay for HMA Cold Weather Paving for HMA placed on days when the department is assessing liquidated damages.

(2) If HMA pavement is placed under 460.3.4 and the HMA Cold Weather Paving bid item is not in the contract, the department will pay for the additional costs specified in 460.5.2.4(1) as extra work. The department will pay separately for HMA pavement under the appropriate HMA Pavement bid items.

465.2 Materials

Replace paragraph two with the following effective with the December 2014 letting:

(2) Under the other 465 bid items, the contractor need not submit a mix design. Furnish aggregates mixed with a type AC asphaltic material, except under the Asphaltic Curb bid item furnish PG58-28 asphaltic material. Use coarse and fine mineral aggregates uniformly coated and mixed with the asphaltic material in an engineer-approved mixing plant. The contractor may include reclaimed asphaltic pavement materials in the mixture.

506.3.2 Shop Drawings

Replace the entire text with the following effective with the May 2015 letting:

(1) Ensure that shop drawings conform to the contract plans and provide additional details, dimensions, computations, and other information necessary for completely fabricating and erecting the work. Include project and structure numbers on each shop drawing sheet.

(2) Check shop drawings and submit electronically to the department for review before beginning fabrication. For primary fabrication items, also certify that shop drawings conform to quality control standards by submitting department form DT2333. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings.

(3) Shop drawings are part of the contract. The department must approve differences between shop drawings and contract plans. The contractor bears the costs of department-approved substitutions. Do not deviate from or revise drawings without notifying the department and resubmitting revised drawings.

(4) Ensure that the fabricator delivers 3 sets of shop drawings for railroad structures to the railroad company upon contract completion.

Bid Items Added

Add the following new bid item effective with the January 2015 letting:

ITEM NUMBER	DESCRIPTION	UNIT
460.4000	HMA Cold Weather Paving	TON

Errata

Make the following corrections to the standard specifications:

501.3.2.4.4 Water Reducer

Correct errata by deleting the reference to footnote 6 for grade D concrete.

(1) Add a water reducing admixture conforming to 501.2.3. Determine the specific type and rate of use based on the atmospheric conditions, the desired properties of the finished concrete and the manufacturer's recommended rate of use. The actual rate of use shall at least equal the manufacturer's recommended rate, and both the type and rate used require the engineer's approval before use.

506.5 Payment

Correct errata by changing the reference to 506.3.22.

(9) The department will limit costs for inspections conducted under 506.3.22 to $0.05 per pound of material and deduct costs in excess of that amount from payment due the contractor. The department will determine costs for in-house inspections based on hourly rates for department staff plus overhead and use invoiced costs for contracted-out inspections. The department will administer deductions for the contractor's share of the total inspection cost under the Excess Costs For Fabrication Shop Inspection administrative item.

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:

Use the following link prior to June 19, 2015:
http://www.dot.wi.gov/business/civilrights/laborwages/index.htm

Use the following link beginning June 19, 2015:
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:

Use the following link prior to June 19, 2015:
http://www.dot.wi.gov/business/civilrights/laborwages/docs/crc-payroll-manual.pdf

Use the following link beginning June 19, 2015:
http://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

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

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

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

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

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

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

SEPTEMBER 2002

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.

2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2013

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

Effective June 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.

Use the following link prior to June 19, 2015:
http://roadwaystandards.dot.wi.gov/standards/cmm/cm-02-28.pdf#cm2-28.5

Use the following link beginning June 19, 2015:
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:

Use the following link prior to June 19, 2015:
http://roadwaystandards.dot.wi.gov/standards/forms/ws4567.doc

Use the following link beginning June 19, 2015:
http://wisconsindot.gov/rdwy/worksheets/ws4567.doc

Effective with September 2004 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS AND TRANSPORTATION FACILITIES

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

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

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

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this in not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 103.50 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) the day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, eculid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

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

II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 103.50 of the Wisconsin Statutes.

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.

b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)

c. A copy of the contractor's Equal Employment Opportunity Policy.

d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

IV. WAGE RATE REDISTRIBUTION

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

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

V. ADDITIONAL CLASSIFICATIONS

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

1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.

2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.

3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.

4. The unlisted classification must be commonly employed in the area where the project is located.

5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.

6. The request should be made prior to the actual performance of the work by the unlisted classification.

7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.

8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

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

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

ANNUAL PREVAILING WAGE RATE DETERMINATION
FOR ALL STATE HIGHWAY PROJECTS
WASHINGTON COUNTY

Compiled by the State of Wisconsin - Department of Workforce Development
for the Department of Transportation
Pursuant to s. 103.50, Stats.
Issued on May 1, 2015

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

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

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

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

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

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Bricklayer, Blocklayer or Stonemason	35.37	17.99	53.36
Carpenter	34.13	20.61	54.74
Future Increase(s): Add $1.50/hr on 6/1/2015; Add $1.65/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	32.75	19.21	51.96
Future Increase(s): Add $1.87 on 6/1/15; Add $1.75 on 6/1/16.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	33.93	22.77	56.70
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Fence Erector	23.73	19.09	42.82
Ironworker	30.77	23.97	54.74
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Line Constructor (Electrical)	39.50	18.39	57.89
Painter	29.22	16.69	45.91
Pavement Marking Operator	30.27	18.79	49.06
Piledriver	30.11	26.51	56.62
Future Increase(s): Add $1.50/hr on 6/1/2015; Add $1.60/hr on 6/1/2016.			
Premium Pay: Add $.65/hr for Piledriver Loftsman; Add $.75/hr for Sheet Piling Loftsman. DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Roofer or Waterproofer	29.40	11.20	40.60
Teledata Technician or Installer	24.89	17.15	42.04
Tuckpointer, Caulker or Cleaner	33.76	17.82	51.58
Underwater Diver (Except on Great Lakes)	35.40	15.90	51.30
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	35.55	15.57	51.12
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	31.60	14.64	46.24
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	27.65	13.44	41.09
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.68	12.83	38.51
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.63	33.38
TRUCK DRIVERS			
Single Axle or Two Axle	25.18	18.31	43.49
Future Increase(s): Add $1.15/hr on 6/1/2015. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Three or More Axle	25.28	18.31	43.59
Future Increase(s): Add $1.15/hr on 6/1/2015. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Articulated, Euclid, Dumptor, Off Road Material Hauler	30.27	21.15	51.42
Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Pavement Marking Vehicle	23.16	17.13	40.29
Shadow or Pilot Vehicle	24.37	17.77	42.14
Truck Mechanic	24.52	17.77	42.29
LABORERS			
General Laborer	26.31	20.03	46.34
Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: Add $.10/hr for 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 $.35/hr for line and grade specialist; Add $2.79/hr for topman; Add $3.21/hr for bottomman; Add $3.98/hr for pipelayer. DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	22.05	18.41	40.46
Landscaper	26.31	20.03	46.34
Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination			

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	23.40	20.03	43.43
Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.71	16.01	33.72
Railroad Track Laborer	17.00	3.28	20.28
HEAVY EQUIPMENT OPERATORS			
Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type).	37.72	21.15	58.87
Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver.	37.22	21.15	58.37
Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, VIbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane WIth a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub	36.72	21.15	57.87

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
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 $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or WIthout Attachments); Telehandler; Tining or Curing Machine.	36.46	21.15	57.61
Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.	36.17	21.15	57.32
Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Fiber Optic Cable Equipment.	28.89	17.95	46.84

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin
GENERAL DECISION NUMBER: WI150010
DATE: April 10, 2015
DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

LABORERS CLASSIFICATION:	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	$26.31	18.75
Group 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	26.41	18.75
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man	26.46	18.75
Group 4: Line and Grade Specialist	26.66	18.75
Group 5: Blaster and Powderman	26.51	18.75
Group 6: Flagperson and Traffic Control Person	23.40	18.75

CLASSES OF LABORER AND MECHANICS

Bricklayer	35.37	18.47
Carpenter	30.52	14.41
Piledriverman	27.25	19.46
Ironworker	30.52	23.47
Cement Mason/Concrete Finisher	30.69	17.53
Electrician		See Page 3
Line Construction		
Lineman	40.81	32% + 5.00
Heavy Equipment Operator	38.77	32% + 5.00
Equipment Operator	32.65	32% + 5.00
Heavy Groundman Driver	26.78	14.11
Light Groundman Driver	24.86	13.45
Groundsman	22.45	32% + 5.00
Millwrights	26.32	13.98
Painter, Brush	29.52	20.04
Painter, Spray and Sandblaster	30.27	20.04
Painter, Bridge	29.87	20.04
Well Drilling:		
Well Driller	16.52	3.70

Truck Drivers:	Basic Hourly Rates	Fringe Benefits
1 & 2 Axles	25.18	18.31
Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic	25.38	18.31

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 2, 2015; Modification #1 dated January 16, 2015; Modification #2 dated March 20, 2015; Modification #3 dated April 10, 2015.

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin
GENERAL DECISION NUMBER: WI150010
DATE: April 10, 2015
DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

POWER EQUIPMENT OPERATORS CLASSIFICATION:	Basic Hourly Rates	Fringe Benefits
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	$37.72	$20.93
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.	$37.22	$20.93
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 (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.	$36.72	$20.93
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.	$36.46	$20.93
Group 5: Air compressor; power pack; vibratory hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; concrete pro-portioning 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.	$36.17	$20.93
Group 6: Off – road material hauler with or without ejector	$30.27	$20.93

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: WI150010
DATE: April 10, 2015
DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

LABORERS CLASSIFICATION:	Rates	Benefits
Electricians		
Area 1	$29.00	26.5%+ 9.15
Area 2:		
Electricians	30.59	18.43
Area 3:		
Electrical contracts under $130,000	26.24	16.85
Electrical contracts over $130,000	29.41	16.97
Area 4:	29.32	28.50% + 9.27
Area 5	28.96	24.85% + 9.70
Area 6	35.25	19.30
Area 8		
Electricians	31.30	24.93% + 10.40
Area 9:		
Electricians	34.82	19.575
Area 10	29.64	20.54
Area 11	32.54	24.07
Area 12	32.87	19.23
Area 13	33.93	22.67
Teledata System Installer		
Area 14		
Installer/Technician	22.50	12.72
Sound & Communications		
Area 15		
Installer	16.47	14.84
Technician	25.63	17.21

Area 1 - 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, TREMPEALEAU, VERNON and WASHBURN COUNTIES

Area 3 - FLORENCE (townships of Aurora, Commonwealth, Fern, Florence and Homestead), MARINETTE (Niagara township)

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.

Area 5 - ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Area North of the town of Wausaukee), 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 6 - KENOSHA COUNTY

Area 8 - DODGE, (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington township), ROCK and WALWORTH COUNTIES

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 10 - CALUMET (Township of New Holstein), DODGE (East of Hwy. 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

Area 11 - DOUGLAS COUNTY

Area 12 - RACINE (except Burlington township) COUNTY

Area 13 - MILWAUKEE, OZAUKEE, WASHINGTON and WAUKESHA COUNTIES

Area 14 - Statewide.

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.

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 omision 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.

CONTRACT: 20150609004

PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70

FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SECTION 0001 High Friction Surface Treatment					
0010	203.0200 Removing Old Structure (station) 01. 680+16	LUMP	LUMP			.
0020	204.0100 Removing Pavement	66.000 SY		.		.
0030	204.0115 Removing Asphaltic Surface Butt Joints	28,352.300 SY		.		.
0040	204.0125 Removing Asphaltic Surface Milling	41,627.900 TON		.		.
0050	204.0150 Removing Curb & Gutter	1,851.000 LF		.		.
0060	204.0155 Removing Concrete Sidewalk	206.000 SY		.		.
0070	204.0165 Removing Guardrail	4,565.000 LF		.		.
0080	204.0180 Removing Delineators and Markers	190.000 EACH		.		.
0090	204.0195 Removing Concrete Bases	43.000 EACH		.		.

CONTRACT: 20150609004

PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70

FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0100	204.0210 Removing Manholes	1.000 EACH		.		.
0110	204.0220 Removing Inlets	3.000 EACH		.		.
0120	204.0245 Removing Storm Sewer (size) 01. 12-Inch	18.000 LF		.		.
0130	204.0245 Removing Storm Sewer (size) 02. 18-Inch	110.000 LF		.		.
0140	204.9060.S Removing (item description) 01. Partial Small Pipe Culverts	4.000 EACH		.		.
0150	204.9060.S Removing (item description) 02. Cable Guard Terminals	78.000 EACH		.		.
0160	204.9090.S Removing (item description) 01. Cable Guard 3-Strands	37,297.000 LF		.		.
0170	205.0100 Excavation Common	46,473.610 CY		.		.
0180	205.0400 Excavation Marsh	51.900 CY		.		.
0190	206.2000 Excavation for Structures Culverts (structure) 01. B-66-0195	LUMP	LUMP			.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0200	208.0100 Borrow	2,076.580 CY		.		.
0210	210.0100 Backfill Structure	600.000 CY		.		.
0220	211.0400 Prepare Foundation for Asphaltic Shoulders	655.800 STA		.		.
0230	213.0100 Finishing Roadway (project) 01. 1100-15-71	1.000 EACH		.		.
0240	213.0100 Finishing Roadway (project) 02. 1100-38-70	1.000 EACH		.		.
0250	213.0100 Finishing Roadway (project) 03. 1100-47-70	1.000 EACH		.		.
0260	305.0110 Base Aggregate Dense 3/4-Inch	21,490.400 TON		.		.
0270	305.0120 Base Aggregate Dense 1 1/4-Inch	37,635.300 TON		.		.
0280	311.0110 Breaker Run	35,275.000 TON		.		.
0290	311.0115 Breaker Run	130.000 CY		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0300	415.0410 Concrete Pavement Approach Slab	66.000 SY		.		.
0310	416.0610 Drilled Tie Bars	1,332.000 EACH		.		.
0320	416.0620 Drilled Dowel Bars	5,808.000 EACH		.		.
0330	416.1715 Concrete Pavement Repair SHES	4,284.000 SY		.		.
0340	416.1725 Concrete Pavement Replacement SHES	692.000 SY		.		.
0350	440.4410.S Incentive IRI Ride	10,000.000 DOL	1.00000		10000.00	
0360	455.0120 Asphaltic Material PG64-28	6,418.900 TON		.		.
0370	455.0150 Asphaltic Material PG70-28P	3,514.400 TON		.		.
0380	455.0605 Tack Coat	29,455.000 GAL		.		.
0390	460.1130 HMA Pavement Type E-30	168,931.600 TON		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0400	460.2000 Incentive Density HMA Pavement	150,741.000 DOL	1.00000		150741.00	
0410	460.4000 HMA Cold Weather Paving	39,220.000 TON		.		.
0420	460.4110.S Reheating HMA Pavement Longitudinal Joints	615,290.000 LF		.		.
0430	465.0110 Asphaltic Surface Patching	200.000 TON		.		.
0440	465.0125 Asphaltic Surface Temporary	170.000 TON		.		.
0450	465.0305 Asphaltic Surface Safety Islands	88.000 TON		.		.
0460	465.0315 Asphaltic Flumes	259.000 SY		.		.
0470	465.0400 Asphaltic Shoulder Rumble Strips	67,822.000 LF		.		.
0480	502.6105 Masonry Anchors Type S 5/8-Inch	25.000 EACH		.		.
0490	504.0100 Concrete Masonry Culverts	250.000 CY		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0500	505.0410 Bar Steel Reinforcement HS Culverts	27,505.000 LB		.		.
0510	505.0610 Bar Steel Reinforcement HS Coated Culverts	935.000 LB		.		.
0520	511.1200 Temporary Shoring (structure) 01. B-66-0195	1,030.000 SF		.		.
0530	516.0500 Rubberized Membrane Waterproofing	35.000 SY		.		.
0540	520.7000 Cleaning Culvert Pipes	4.000 EACH		.		.
0550	520.8000 Concrete Collars for Pipe	11.000 EACH		.		.
0560	522.0136 Culvert Pipe Reinforced Concrete Class III 36-Inch	8.000 LF		.		.
0570	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	1.000 EACH		.		.
0580	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	1.000 EACH		.		.
0590	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	1.000 EACH		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0600	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	1.000 EACH		.		.
0610	601.0411 Concrete Curb & Gutter 30-Inch Type D	1,171.000 LF		.		.
0620	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	604.000 LF		.		.
0630	602.0410 Concrete Sidewalk 5-Inch	1,532.000 SF		.		.
0640	602.0505 Curb Ramp Detectable Warning Field Yellow	48.000 SF		.		.
0650	603.1132 Concrete Barrier Type S32	215.000 LF		.		.
0660	603.8000 Concrete Barrier Temporary Precast Delivered	9,043.000 LF		.		.
0670	603.8125 Concrete Barrier Temporary Precast Installed	26,416.000 LF		.		.
0680	604.0500 Slope Paving Crushed Aggregate	1,127.000 SY		.		.
0690	604.0600 Slope Paving Select Crushed Material	39.200 SY		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0700	606.0200 Riprap Medium	72.300 CY		.		.
0710	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	482.000 LF		.		.
0720	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	88.000 LF		.		.
0730	611.0624 Inlet Covers Type H	4.000 EACH		.		.
0740	611.0642 Inlet Covers Type MS	10.000 EACH		.		.
0750	611.3004 Inlets 4-FT Diameter	1.000 EACH		.		.
0760	611.3230 Inlets 2x3-FT	2.000 EACH		.		.
0770	611.3901 Inlets Median 1 Grate	2.000 EACH		.		.
0780	611.3902 Inlets Median 2 Grate	4.000 EACH		.		.
0790	611.8115 Adjusting Inlet Covers	8.000 EACH		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0800	611.8120.S Cover Plates Temporary	5.000 EACH		.		.
0810	612.0204 Pipe Underdrain Unperforated 4-Inch	1,404.000 LF		.		.
0820	612.0404 Pipe Underdrain Wrapped 4-Inch	36,600.000 LF		.		.
0830	612.0804 Apron Endwalls for Underdrain Reinforced Concrete 4-Inch	15.000 EACH		.		.
0840	614.0010 Barrier System Grading Shaping Finishing	22.000 EACH		.		.
0850	614.0220 Steel Thrie Beam Bullnose Terminal	1.000 EACH		.		.
0860	614.0230 Steel Thrie Beam	1,951.000 LF		.		.
0870	614.0905 Crash Cushions Temporary	5.000 EACH		.		.
0880	614.2300 MGS Guardrail 3	5,139.000 LF		.		.
0890	614.2330 MGS Guardrail 3 K	5,508.000 LF		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0900	614.2500 MGS Thrie Beam Transition	320.000 LF		.		.
0910	614.2610 MGS Guardrail Terminal EAT	19.000 EACH		.		.
0920	614.2620 MGS Guardrail Terminal Type 2	16.000 EACH		.		.
0930	619.1000 Mobilization	1.000 EACH		.		.
0940	620.0300 Concrete Median Sloped Nose	77.000 SF		.		.
0950	624.0100 Water	463.000 MGAL		.		.
0960	625.0100 Topsoil	3,190.000 SY		.		.
0970	625.0500 Salvaged Topsoil	13,910.000 SY		.		.
0980	628.1504 Silt Fence	7,370.000 LF		.		.
0990	628.1520 Silt Fence Maintenance	7,370.000 LF		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1000	628.1905 Mobilizations Erosion Control	7.000 EACH		.		.
1010	628.1910 Mobilizations Emergency Erosion Control	11.000 EACH		.		.
1020	628.2004 Erosion Mat Class I Type B	3,865.000 SY		.		.
1030	628.2037 Erosion Mat Class III Type C	15,048.000 SY		.		.
1040	628.7005 Inlet Protection Type A	85.000 EACH		.		.
1050	628.7010 Inlet Protection Type B	13.000 EACH		.		.
1060	628.7015 Inlet Protection Type C	2.000 EACH		.		.
1070	628.7504 Temporary Ditch Checks	525.000 LF		.		.
1080	628.7555 Culvert Pipe Checks	12.000 EACH		.		.
1090	628.7560 Tracking Pads	5.000 EACH		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1100	629.0210 Fertilizer Type B	24.500 CWT		.		.
1110	630.0120 Seeding Mixture No. 20	79.000 LB		.		.
1120	630.0130 Seeding Mixture No. 30	467.000 LB		.		.
1130	630.0140 Seeding Mixture No. 40	44.000 LB		.		.
1140	630.0200 Seeding Temporary	603.000 LB		.		.
1150	630.0300 Seeding Borrow Pit	110.000 LB		.		.
1160	633.0100 Delineator Posts Steel	141.000 EACH		.		.
1170	633.0200 Delineators Flexible	148.000 EACH		.		.
1180	633.0500 Delineator Reflectors	141.000 EACH		.		.
1190	633.5200 Markers Culvert End	4.000 EACH		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1200	634.0618 Posts Wood 4x6-Inch X 18-FT	229.000 EACH		.		.
1210	634.0622 Posts Wood 4x6-Inch X 22-FT	13.000 EACH		.		.
1220	635.0200 Sign Supports Structural Steel HS	2,600.000 LB		.		.
1230	635.0300 Sign Supports Replacing Base Connection Bolts	17.000 EACH		.		.
1240	636.0100 Sign Supports Concrete Masonry	2.800 CY		.		.
1250	636.0500 Sign Supports Steel Reinforcement	166.000 LB		.		.
1260	637.1220 Signs Type I Reflective SH	5,090.400 SF		.		.
1270	637.2210 Signs Type II Reflective H	2,127.335 SF		.		.
1280	637.2215 Signs Type II Reflective H Folding	319.040 SF		.		.
1290	637.2230 Signs Type II Reflective F	497.070 SF		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1300	638.2102 Moving Signs Type II	11.000 EACH		.		.
1310	638.2601 Removing Signs Type I	28.000 EACH		.		.
1320	638.2602 Removing Signs Type II	204.000 EACH		.		.
1330	638.3000 Removing Small Sign Supports	193.000 EACH		.		.
1340	638.3100 Removing Structural Steel Sign Supports	4.000 EACH		.		.
1350	641.8100 Overhead Sign Support (structure) 01. S-66-238	LUMP	LUMP			.
1360	641.8100 Overhead Sign Support (structure) 02. S-66-237	LUMP	LUMP			.
1370	641.8100 Overhead Sign Support (structure) 03. S-66-952	LUMP	LUMP			.
1380	641.8100 Overhead Sign Support (structure) 04. S-66-607	LUMP	LUMP			.
1390	641.8100 Overhead Sign Support (structure) 05. S-66-236	LUMP	LUMP			.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1400	641.8100 Overhead Sign Support (structure) 06. S-66-239	LUMP	LUMP			.
1410	641.8100 Overhead Sign Support (structure) 07. S-66-240	LUMP	LUMP			.
1420	642.5401 Field Office Type D	1.000 EACH		.		.
1430	643.0200 Traffic Control Surveillance and Maintenance (project) 01. 1100-15-71	30.000 DAY		.		.
1440	643.0200 Traffic Control Surveillance and Maintenance (project) 02. 1100-38-70	225.000 DAY		.		.
1450	643.0200 Traffic Control Surveillance and Maintenance (project) 03. 1100-47-70	14.000 DAY		.		.
1460	643.0300 Traffic Control Drums	415,273.000 DAY		.		.
1470	643.0410 Traffic Control Barricades Type II	352.000 DAY		.		.
1480	643.0420 Traffic Control Barricades Type III	37,862.000 DAY		.		.
1490	643.0705 Traffic Control Warning Lights Type A	75,760.000 DAY		.		.

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PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1500	643.0715 Traffic Control Warning Lights Type C	21,623.000 DAY		.		.
1510	643.0800 Traffic Control Arrow Boards	1,809.000 DAY		.		.
1520	643.0900 Traffic Control Signs	45,815.000 DAY		.		.
1530	643.0910 Traffic Control Covering Signs Type I	36.000 EACH		.		.
1540	643.0920 Traffic Control Covering Signs Type II	251.000 EACH		.		.
1550	643.1000 Traffic Control Signs Fixed Message	1,100.000 SF		.		.
1560	643.1050 Traffic Control Signs PCMS	2,132.000 DAY		.		.
1570	643.1055.S Truck or Trailer Mounted Attenuator 01. 1100-15-71	16.000 DAY		.		.
1580	643.1055.S Truck or Trailer Mounted Attenuator 02. 1100-38-70	990.000 DAY		.		.
1590	643.1055.S Truck or Trailer Mounted Attenuator 03. 1100-47-70	14.000 DAY		.		.

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PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1600	643.2000 Traffic Control Detour (project) 02. 1100-38-70	1.000 EACH		.		.
1610	643.2000 Traffic Control Detour (project) 03. 1100-47-70	1.000 EACH		.		.
1620	643.3000 Traffic Control Detour Signs	2,594.000 DAY		.		.
1630	645.0105 Geotextile Fabric Type C	422.000 SY		.		.
1640	645.0120 Geotextile Fabric Type HR	159.000 SY		.		.
1650	645.0130 Geotextile Fabric Type R	17.000 SY		.		.
1660	646.0106 Pavement Marking Epoxy 4-Inch	163,800.000 LF		.		.
1670	646.0126 Pavement Marking Epoxy 8-Inch	2,366.000 LF		.		.
1680	646.0600 Removing Pavement Markings	198,290.500 LF		.		.
1690	646.0790.S Removing Raised Pavement Markers	24.000 EACH		.		.

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PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1700	646.0841.S Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	34,480.000 LF		.		.
1710	646.0843.S Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	16,557.000 LF		.		.
1720	647.0186 Pavement Marking Arrows Epoxy Type 4	6.000 EACH		.		.
1730	647.0456 Pavement Marking Curb Epoxy	750.000 LF		.		.
1740	647.0606 Pavement Marking Island Nose Epoxy	5.000 EACH		.		.
1750	647.0746 Pavement Marking Diagonal Epoxy 24-Inch	1,818.000 LF		.		.
1760	649.0100 Temporary Pavement Marking 4-Inch	370,958.000 LF		.		.
1770	649.0200 Temporary Pavement Marking Reflective Paint 4-Inch	2,425.000 LF		.		.
1780	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	21,194.000 LF		.		.
1790	649.0701 Temporary Pavement Marking 8-Inch	10,923.000 LF		.		.

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PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1800	649.0801 Temporary Pavement Marking Removable Tape 8-Inch	1,672.000 LF		.		.
1810	649.1100 Temporary Pavement Marking Stop Line 18-Inch	132.000 LF		.		.
1820	649.1500 Temporary Pavement Marking Diagonal 12-Inch	255.000 LF		.		.
1830	649.1700 Temporary Pavement Marking Arrows	14.000 EACH		.		.
1840	649.1900 Temporary Pavement Marking Words	8.000 EACH		.		.
1850	650.4000 Construction Staking Storm Sewer	30.000 EACH		.		.
1860	650.4500 Construction Staking Subgrade	5,240.000 LF		.		.
1870	650.5000 Construction Staking Base	5,973.000 LF		.		.
1880	650.5500 Construction Staking Curb Gutter and Curb & Gutter	1,775.000 LF		.		.
1890	650.6000 Construction Staking Pipe Culverts	4.000 EACH		.		.

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PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1900	650.6500 Construction Staking Structure Layout (structure) 01. B-66-0195	LUMP	LUMP			.
1910	650.7000 Construction Staking Concrete Pavement	60.000 LF		.		.
1920	650.7500 Construction Staking Concrete Barrier	540.000 LF		.		.
1930	650.8000 Construction Staking Resurfacing Reference	58,970.000 LF		.		.
1940	650.9910 Construction Staking Supplemental Control (project) 02. 1100-38-70	LUMP	LUMP			.
1950	650.9920 Construction Staking Slope Stakes	5,240.000 LF		.		.
1960	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	3,686.000 LF		.		.
1970	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	2,167.000 LF		.		.
1980	652.0605 Conduit Special 2-Inch	946.000 LF		.		.
1990	652.0615 Conduit Special 3-Inch	3,234.000 LF		.		.

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PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2000	652.0700.S Install Conduit into Existing Item	11.000 EACH		.		.
2010	653.0135 Pull Boxes Steel 24x36-Inch	12.000 EACH		.		.
2020	653.0140 Pull Boxes Steel 24x42-Inch	56.000 EACH		.		.
2030	653.0905 Removing Pull Boxes	58.000 EACH		.		.
2040	654.0101 Concrete Bases Type 1	19.000 EACH		.		.
2050	654.0102 Concrete Bases Type 2	10.000 EACH		.		.
2060	654.0105 Concrete Bases Type 5	8.000 EACH		.		.
2070	654.0107 Concrete Bases Type 7	1.000 EACH		.		.
2080	654.0110 Concrete Bases Type 10	4.000 EACH		.		.
2090	654.0113 Concrete Bases Type 13	7.000 EACH		.		.

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PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2100	654.0217 Concrete Control Cabinet Bases Type 9 Special	4.000 EACH		.		.
2110	654.0220 Concrete Control Cabinet Bases Type 10	7.000 EACH		.		.
2120	655.0225 Cable Traffic Signal 5-12 AWG	1,860.000 LF		.		.
2130	655.0230 Cable Traffic Signal 5-14 AWG	1,663.000 LF		.		.
2140	655.0240 Cable Traffic Signal 7-14 AWG	7,393.000 LF		.		.
2150	655.0260 Cable Traffic Signal 12-14 AWG	2,173.000 LF		.		.
2160	655.0305 Cable Type UF 2-12 AWG Grounded	2,247.000 LF		.		.
2170	655.0505 Electrical Wire Traffic Signals 14 AWG	38,105.000 LF		.		.
2180	655.0515 Electrical Wire Traffic Signals 10 AWG	8,866.000 LF		.		.
2190	655.0610 Electrical Wire Lighting 12 AWG	1,551.000 LF		.		.

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PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2200	655.0630 Electrical Wire Lighting 4 AWG	1,580.000 LF		.		.
2210	656.0200 Electrical Service Meter Breaker Pedestal (location) 01. 41/45 Nb Ramp At Cth Q	LUMP	LUMP			.
2220	656.0200 Electrical Service Meter Breaker Pedestal (location) 02. 41/45 Nb Ramp At Sth 167	LUMP	LUMP			.
2230	656.0200 Electrical Service Meter Breaker Pedestal (location) 03. 41/45 Sb Ramp At Cth Q	LUMP	LUMP			.
2240	656.0200 Electrical Service Meter Breaker Pedestal (location) 04. 41/45 Sb Ramp At Sth 167	LUMP	LUMP			.
2250	657.0100 Pedestal Bases	26.000 EACH		.		.
2260	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	18.000 EACH		.		.
2270	657.0305 Poles Type 2	4.000 EACH		.		.
2280	657.0310 Poles Type 3	6.000 EACH		.		.

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PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
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CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2290	657.0322 Poles Type 5-Aluminum	1.000 EACH		.		.
2300	657.0420 Traffic Signal Standards Aluminum 13-FT	15.000 EACH		.		.
2310	657.0425 Traffic Signal Standards Aluminum 15-FT	8.000 EACH		.		.
2320	657.0430 Traffic Signal Standards Aluminum 10-FT	3.000 EACH		.		.
2330	657.0609 Luminaire Arms Single Member 4-Inch Clamp 6-FT	7.000 EACH		.		.
2340	657.1345 Install Poles Type 9	2.000 EACH		.		.
2350	657.1350 Install Poles Type 10	2.000 EACH		.		.
2360	657.1355 Install Poles Type 12	6.000 EACH		.		.
2370	657.1360 Install Poles Type 13	1.000 EACH		.		.
2380	657.1525 Install Monotube Arms 25-FT	1.000 EACH		.		.

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PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2390	657.1530 Install Monotube Arms 30-FT	3.000 EACH		.		.
2400	657.1535 Install Monotube Arms 35-FT	4.000 EACH		.		.
2410	657.1545 Install Monotube Arms 45-FT	3.000 EACH		.		.
2420	657.1815 Install Luminaire Arms Steel 15-FT	5.000 EACH		.		.
2430	658.0110 Traffic Signal Face 3-12 Inch Vertical	46.000 EACH		.		.
2440	658.0115 Traffic Signal Face 4-12 Inch Vertical	4.000 EACH		.		.
2450	658.0215 Backplates Signal Face 3 Section 12-Inch	46.000 EACH		.		.
2460	658.0220 Backplates Signal Face 4 Section 12-Inch	4.000 EACH		.		.
2470	658.0416 Pedestrian Signal Face 16-Inch	6.000 EACH		.		.
2480	658.0500 Pedestrian Push Buttons	6.000 EACH		.		.

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PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2490	658.0600 Led Modules 12-Inch Red Ball	41.000 EACH		.		.
2500	658.0605 Led Modules 12-Inch Yellow Ball	37.000 EACH		.		.
2510	658.0610 Led Modules 12-Inch Green Ball	36.000 EACH		.		.
2520	658.0615 Led Modules 12-Inch Red Arrow	9.000 EACH		.		.
2530	658.0620 Led Modules 12-Inch Yellow Arrow	17.000 EACH		.		.
2540	658.0625 Led Modules 12-Inch Green Arrow	14.000 EACH		.		.
2550	658.0635 Led Modules Pedestrian Countdown Timer 16-Inch	6.000 EACH		.		.
2560	658.5069 Signal Mounting Hardware (location) 01. 41/45 Sb Ramp At Cth Q	LUMP	LUMP			.
2570	658.5069 Signal Mounting Hardware (location) 02. 41/45 Nb Ramp At Cth Q	LUMP	LUMP			.
2580	658.5069 Signal Mounting Hardware (location) 03. 41/45 Sb Ramp At Sth 167	LUMP	LUMP			.

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FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2590	658.5069 Signal Mounting Hardware (location) 04. 41/45 Nb Ramp At Sth 167	LUMP	LUMP			.
2600	659.0802 Plaques Sequence Identification	2.000 EACH		.		.
2610	659.1125 Luminaires Utility LED C	30.000 EACH		.		.
2620	659.1130 Luminaires Utility LED D	8.000 EACH		.		.
2630	661.0200 Temporary Traffic Signals for Intersections (location) 01. 41/45 Sb Ramp At Cth Q	LUMP	LUMP			.
2640	661.0200 Temporary Traffic Signals for Intersections (location) 02. 41/45 Nb Ramp At Cth Q	LUMP	LUMP			.
2650	661.0200 Temporary Traffic Signals for Intersections (location) 03. 41/45 Sb Ramp At Sth 167	LUMP	LUMP			.
2660	661.0200 Temporary Traffic Signals for Intersections (location) 04. 41/45 Nb Ramp At Sth 167	LUMP	LUMP			.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2670	662.2032.S Ramp Closure Gates Solar 32-FT	2.000 EACH		.		.
2680	662.2037.S Ramp Closure Gates Solar 37-FT	2.000 EACH		.		.
2690	662.2040.S Ramp Closure Gates Solar 40-FT	3.000 EACH		.		.
2700	662.6020.S Ramp Closure Barricade Rack 2-Unit	1.000 EACH		.		.
2710	662.6030.S Ramp Closure Barricade Rack 3-Unit	1.000 EACH		.		.
2720	670.0100 Field System Integrator 01. FTMS	LUMP	LUMP			.
2730	670.0100 Field System Integrator 02. 41/45 Nb & Sb Ramps At Cth Q	LUMP	LUMP			.
2740	670.0100 Field System Integrator 03. 41/45 Nb & Sb Ramps At Sth 167	LUMP	LUMP			.
2750	670.0200 ITS Documentation 01. FTMS	LUMP	LUMP			.
2760	670.0200 ITS Documentation 02. 41/45 Nb & Sb Ramps At Cth Q	LUMP	LUMP			.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2770	670.0200 ITS Documentation 03. 41/45 Nb & Sb Ramps At Sth 167	LUMP	LUMP			.
2780	671.0132 Conduit HDPE 3-Duct 2-Inch	34,800.000 LF		.		.
2790	671.0232 Conduit HDPE Directional Bore 3-Duct 2-Inch	2,280.000 LF		.		.
2800	671.0300 Fiber Optic Cable Marker	66.000 EACH		.		.
2810	673.0105 Communication Vault Type 1	38.000 EACH		.		.
2820	674.0200 Cable Microwave Detector	165.000 LF		.		.
2830	675.0300 Install Mounted Controller Microwave Detector Assembly	2.000 EACH		.		.
2840	675.0400.S Install Ethernet Switch	5.000 EACH		.		.
2850	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	1,455.000 LF		.		.
2860	678.0072 Install Fiber Optic Cable Outdoor Plant 72-CT	41,300.000 LF		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2870	678.0200 Fiber Optic Splice Enclosure	4.000 EACH		.		.
2880	678.0300 Fiber Optic Splice	330.000 EACH		.		.
2890	678.0400 Fiber Optic Termination	36.000 EACH		.		.
2900	678.0500 Communication System Testing 01. FTMS	LUMP	LUMP			.
2910	678.0500 Communication System Testing 02. 41/45 Nb & Sb Ramps At Cth Q	LUMP	LUMP			.
2920	678.0500 Communication System Testing 03. 41/45 Nb & Sb Ramps At Sth 167	LUMP	LUMP			.
2930	690.0150 Sawing Asphalt	7,938.000 LF		.		.
2940	690.0250 Sawing Concrete	15,569.000 LF		.		.
2950	715.0502 Incentive Strength Concrete Structures	250.000 DOL		.		.
2960	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	5,000.000 HRS	5.00000		25000.00	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2970	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	6,000.000 HRS	5.00000		30000.00	
2980	SPV.0035 Special 01. Backfill Slurry	80.000 CY		.		.
2990	SPV.0060 Special 01. Connecting Pipe Underdrain 4-Inch To Existing Inlets	91.000 EACH		.		.
3000	SPV.0060 Special 02. Clearing Of Overgrowth And Cleaning Exsting Storm Sewer System	58.000 EACH		.		.
3010	SPV.0060 Special 03. Storm Sewer Tap	1.000 EACH		.		.
3020	SPV.0060 Special 04. Concrete Barrier Transiition Special	3.000 EACH		.		.
3030	SPV.0060 Special 05. Terminal High-Tension Cable Guard Tl-3	28.000 EACH		.		.
3040	SPV.0060 Special 06. Section Corner Monuments Special	1.000 EACH		.		.
3050	SPV.0060 Special 07. Permanent Barricades Type III	5.000 EACH		.		.
3060	SPV.0060 Special 08. Removing And Salvage Lighting Units	1.000 EACH		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SPV.0060 Special 09.					
3070	Removing Luminaires	27.000 EACH		.		.
	SPV.0060 Special 10.					
3080	Lamp Disposal High Instensity Discharge	27.000 EACH		.		.
	SPV.0060 Special 11.					
3090	Install Salvage Lighting Units	1.000 EACH		.		.
	SPV.0060 Special 12.					
3100	Pavement Marking Grooved Preformed Thermoplastic Arrows Type 2	19.000 EACH		.		.
	SPV.0060 Special 13.					
3110	Pavement Marking Grooved Preformed Thermoplastic Arrows Type 3	8.000 EACH		.		.
	SPV.0060 Special 14.					
3120	Pavement Marking Grooved Preformed Thermoplastic Arrows Type 5	2.000 EACH		.		.
	SPV.0060 Special 15.					
3130	Pavement Marking Grooved Preformed Thermoplastic Words	19.000 EACH		.		.
	SPV.0060 Special 16.					
3140	Install 5.8 Ghz Ethernet Bridge Ush 41/45 Sb & Nb Ramps At Cth Q	2.000 EACH		.		.
	SPV.0060 Special 17.					
3150	Removing Wireless Ethernet Bridge	7.000 EACH		.		.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3160	SPV.0060 Special 18. Removing Parabolic Antenna	2.000 EACH		.		.
3170	SPV.0060 Special 19. Removing Yagi Antenna	3.000 EACH		.		.
3180	SPV.0060 Special 20. Ground Rod	1.000 EACH		.		.
3190	SPV.0090 Special 01. High-Tension Cable Guard Tl-3 Socketed	32,023.000 LF		.		.
3200	SPV.0090 Special 02. Pavement Marking Grooved Preformed Thermoplastic Crosswalk 6-Inch	241.000 LF		.		.
3210	SPV.0090 Special 03. Pavement Marking Grooved Preformed Thermoplastic Stop Bars 18-Inch	394.000 LF		.		.
3220	SPV.0090 Special 04. Drain Slotted Vane Longitudinal	472.000 LF		.		.
3230	SPV.0090 Special 05. Heavy Duty Silt Fence	2,103.000 LF		.		.
3240	SPV.0090 Special 06. Pavement Marking Contrast Epoxy 4-Inch	3,850.000 LF		.		.
3250	SPV.0090 Special 07. Milling And Removing Temporary Longitudinal Joint	152,399.000 LF		.		.

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FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3260	SPV.0105 Special 01. Grading, Shaping, & Finishing Slope Paving Approaches At Ush 41 & Cth Q	LUMP	LUMP			.
3270	SPV.0105 Special 02. Grading Shaping & Finishing Slope Paving Appr At Ush 41 Nb & Maple Rd	LUMP	LUMP			.
3280	SPV.0105 Special 03. Grading Shaping & Finishing Slope Paving Appr At Ush 41 & Lannon Rd	LUMP	LUMP			.
3290	SPV.0105 Special 04. Grading Shaping & Finishing Slope Paving Appr At Ush 41 & Friestadt Rd	LUMP	LUMP			.
3300	SPV.0105 Special 05. Grading Shaping & Finishing Slope Paving Appr At Ush 41 & Holy Hill Rd	LUMP	LUMP			.
3310	SPV.0105 Special 06. Grading, Shaping, & Finishing Back Slope At Sta 446+00 Rt	LUMP	LUMP			.
3320	SPV.0105 Special 07. Grading, Shaping & Finishing Median Ditch From Sta 395+00 To Sta 419+00	LUMP	LUMP			.

CONTRACT: 20150609004

PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70

FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3330	SPV.0105 Special 08. Maintaining Drainage During Construction	LUMP	LUMP			.
3340	SPV.0105 Special 09. Install State Furnished Traffic Signal Cabinet (41/45 Sb Ramp At Cth Q)	LUMP	LUMP			.
3350	SPV.0105 Special 10. Install State Furnished Traffic Signal Cabinet (41/45 Nb Ramp At Cth Q)	LUMP	LUMP			.
3360	SPV.0105 Special 11. Install State Furnished Traffic Signal Cabinet (41/45 Sb Ramp At Sth 167	LUMP	LUMP			.
3370	SPV.0105 Special 12. Install State Furnished Traffic Signal Cabinet (41/45 Nb Ramp At Sth 167	LUMP	LUMP			.
3380	SPV.0105 Special 13. Trans. Traf. Sig. & Int. Lighting Materials 41/45 Sb Ramp At Cth Q	LUMP	LUMP			.
3390	SPV.0105 Special 14. Trans. Traf. Sig. & Int. Lighting Materials 41/45 Nb Ramp At Cth Q	LUMP	LUMP			.
3400	SPV.0105 Special 15. Trans. Traf. Sig. & Int. Lighting Materials 41/45 Sb Ramp At Sth 167	LUMP	LUMP			.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3410	SPV.0105 Special 16. Trans. Traf. Sig. & Int. Lighting Materials 41/45 Nb Ramp At Sth 167	LUMP	LUMP			.
3420	SPV.0105 Special 17. Trans. & Inst St Furn Autoscope Vid Det Sys 41/45 Sb Ramp At Cth Q	LUMP	LUMP			.
3430	SPV.0105 Special 18. Trans. & Inst St Furn Autoscope Vid Det Sys 41/45 Nb Ramp At Cth Q	LUMP	LUMP			.
3440	SPV.0105 Special 19. Trans. & Inst St Furn Radar Det Sys 41/45 Sb Ramp At Sth 167	LUMP	LUMP			.
3450	SPV.0105 Special 20. Trans. & Inst St Furn Radar Det Sys 41/45 Nb Ramp At Sth 167	LUMP	LUMP			.
3460	SPV.0105 Special 21. Install Fiber Optic Comm. In Cabinet 41/45 Sb Ramp At Cth Q	LUMP	LUMP			.
3470	SPV.0105 Special 22. Install Fiber Optic Comm. In Cabinet 41/45 Nb Ramp At Cth Q	LUMP	LUMP			.
3480	SPV.0105 Special 23. Install Fiber Optic Comm. In Cabinet 41/45 Sb Ramp At Sth 167	LUMP	LUMP			.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SPV.0105 Special 24.					
3490	Install Fiber Optic Comm. In Cabinet 41/45 Nb Ramp At Sth 167	LUMP	LUMP			.
	SPV.0105 Special 25.					
3500	Remove Loop Detector Wire & Lead-In Cable 41/45 Sb Ramp At Cth Q	LUMP	LUMP			.
	SPV.0105 Special 26.					
3510	Remove Loop Detector Wire & Lead-In Cable 41/45 Nb Ramp At Cth Q	LUMP	LUMP			.
	SPV.0105 Special 27.					
3520	Remove Loop Detector Wire & Lead-In Cable 41/45 Sb Ramp At Sth 167	LUMP	LUMP			.
	SPV.0105 Special 28.					
3530	Remove Loop Detector Wire & Lead-In Cable 41/45 Nb Ramp At Sth 167	LUMP	LUMP			.
	SPV.0105 Special 29.					
3540	Remove Traffic Signals 41/45 Sb Ramp At Cth Q	LUMP	LUMP			.
	SPV.0105 Special 30.					
3550	Remove Traffic Signals 41/45 Nb Ramp At Cth Q	LUMP	LUMP			.
	SPV.0105 Special 31.					
3560	Remove Traffic Signals 41/45 Sb Ramp At Sth 167	LUMP	LUMP			.
	SPV.0105 Special 32.					
3570	Remove Traffic Signals 41/45 Nb Ramp At Sth 167	LUMP	LUMP			.

CONTRACT: 20150609004
PROJECT(S): 1100-15-71, 1100-38-70, 1100-47-70
FEDERAL ID(S): N/A, WISC 2015317, WISC 2015318

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3580	SPV.0105 Special 33. Temp. Non Intrusive Veh. Video Det Sys For Int 41/45 Sb Ramp At Cth Q	LUMP	LUMP			.
3590	SPV.0105 Special 34. Temp. Non Intrusive Veh. Video Det Sys For Int 41/45 Nb Ramp At Cth Q	LUMP	LUMP			.
3600	SPV.0105 Special 35. Temp. Non Intrusive Veh. Video Det Sys For Int 41/45 Sb Ramp At Sth 167	LUMP	LUMP			.
3610	SPV.0105 Special 36. Temp. Non Intrusive Veh. Video Det Sys For Int 41/45 Nb Ramp At Sth 167	LUMP	LUMP			.
3620	SPV.0105 Special 37. Removing Concrete Barrier Transition Special	LUMP	LUMP			.
3630	SPV.0170 Special 01. Proof-Rolling Existing Base	646.000 STA		.		.
3640	SPV.0180 Special 01. Resin Binder High Friction Surface Treatment	33,362.000 SY		.		.
3650	SPV.0195 Special 01. Qmp Base Aggregate Dense 1 1/4-Inch Compaction	36,556.000 TON		.		.
3660	SPV.0195 Special 02. Coarse Aggregate Mix for Stream Bed	20.700 TON		.		.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

PLEASE ATTACH SCHEDULE OF ITEMS HERE