HIGHWAY WORK PROPOSAL

Proposal Number: 1 1

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

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Rock	5966-00-72		Beloit - Janesville Townline Road Intersection	CTH G
Rock	5966-00-73	WISC 2015 179	Beloit - Janesville Townline Road Intersection	CTH G
Rock	5966-10-70		CTH G, Beloit - Janesville Huebbe Parkway to STH 11	CTH G
Rock	5966-10-71		Brodhead - Janesville CTH G Intersection	STH 11

This proposal, submitted by the undersigned bidder to the Wisconsin Department of Transportation, is in accordance with the advertised request for proposals. The bidder is to furnish and deliver all materials, and to perform all work for the improvement of the designated project in the time specified, in accordance with the appended Proposal Requirements and Conditions.

Proposal Guaranty Required, $ 400,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: April 14, 2015 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time November 25, 2015	
Assigned Disadvantaged Business Enterprise Goal DISC %	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 Grading, storm sewer, base aggregate, HMA and PCC pavement, traffic signals, signing, pavement marking, Structures B-53-291 and C-53-8.	
Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2007 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

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

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

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

(6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm 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 **http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm**. 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.

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 5966-00-72 and Project 5966-00-73, Beloit-Janesville, Townline Road Intersection, CTH G; Project 5966-10-70 CTH G, Beloit-Janesville, Huebbe Parkway to STH 11, and Project 5966-10-71 Brodhead-Janesville, CTH G Intersection, STH 11, all projects located in Rock County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 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 (20140630)

2. Scope of Work.

The work under this contract shall consist of grading, storm sewer, culverts, base aggregate, HMA and PCC pavement, traffic signals, street lighting, pavement marking signing, Structures B-53-291 and C-53-08, 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.

The contract time for completion is based on an expedited work schedule and may require extraordinary forces and equipment.

Conform to the staging as shown in the traffic control plans and the requirements noted hereinafter.

Segment 1 – CTH G from Huebbe Parkway to Philhower Road (Project 5966-10-70)

Stage 1 – Mainline

- Construct temporary roadway widening and temporary drainage from Huebbe Parkway to Philhower Road.
- Construct trunk storm sewer from Huebbe Parkway to Zick Drive including inlets on the east side. Construct storm leads for west side inlets to the centerline of CTH G, install temporary bulkhead and place temporary asphalt

surface over inlet trenches. Place temporary cover plates on inlets that fall within the temporary roadway.
- Construct eastern extension of box culvert C-53-08.
- Construct temporary curb ramps on Huebbe Parkway.

Stage 1A – Storm sewer connection at Huebbe Parkway
- Construct between 8:00 PM Monday, Tuesday, Wednesday and Thursday to 6:00 AM the following day.
- Remove and replace existing storm manhole and construct storm sewer to the centerline of Huebbe Parkway.
- Place base aggregate surfacing and reopen for traffic.

Stage 1B – Storm sewer connection at Huebbe Parkway
- Construct between 8:00 PM Monday, Tuesday, Wednesday and Thursday to 6:00 AM the following day.
- Remove and replace existing storm sewer from the centerline to the north edge of Huebbe Parkway.
- Place base aggregate surfacing and reopen for traffic.

Stage 1C – Storm sewer connection at Huebbe Parkway
- Construct between 8:00 PM Monday, Tuesday, Wednesday and Thursday to 6:00 AM the following day.
- Place permanent asphalt paving over storm sewer trench.

Stage 1 USH 51 and Cranston Road
- Construct prior to starting Stage 2 on CTH G between Huebbe Parkway and Philhower Road.
- Construct prior to signing CTH G detour and closing CTH G from Philhower Road to STH 11.
- Modify existing traffic signals.
- Perform asphaltic surface milling and placement of asphaltic surface patching.
- Remove existing pavement marking and place new pavement markings.

Stage 2 – Mainline
- Construct trunk storm sewer from Zick Drive to Philhower Road including inlets on the west side. Construct inlet leads for east side inlets to the centerline of CTH G and place temporary bulkhead.
- Complete inlet leads and construct west side storm inlets between Huebbe Parkway and Zick Drive.
- Construct western extension of box culvert C-53-08.
- Construct southbound side of CTH G.
- Construct pipe cross culvert north of Philhower Road in stages to allow for local access. Start culvert installation on a Monday and complete installation of the culvert within 5 working days after starting.

- Sidewalk completed in Stage 2 will be closed to pedestrians until sidewalk is completed on the east side of CTH G in Stage 3.

Stage 2A – Inman Parkway

- Remove traffic signal.
- Construct westbound portion of Inman Parkway and north side inlets.
- Construct northwest quadrant portion of traffic signal bases and conduit.

Stage 2B – Inman Parkway

- Construct storm sewer and south side inlets.
- Construct eastbound portion of Inman Parkway.
- Construct southwest quadrant portion of traffic signal bases and conduit.

Stage 3 – Mainline

- Complete inlet leads and construct east side storm inlets between Zick Drive and Philhower Road.
- Construct southbound side of CTH G.
- Construct southeast and northeast quadrant portions of traffic signal bases and conduit at Inman Parkway.
- Complete traffic signal installation at Inman Parkway.
- Perform pavement marking and signing.

Segment 2 – CTH G from Philhower Road to Sunny Lane (Project 5966-00-72, -73)

Stage 1A

- Install temporary driveway at Station 144+00 'G' RT. Currently the Bedrock Grinding site is not operational. This stage may be eliminated with the permission of the engineer if the Bedrock Grinding site is not operational during the construction of Stage 1B.

Stage 1B

- Construct the entire roadway section of Townline Road to lower layer Hot Mix Asphalt (HMA) grade. All storm sewer, ditching, and restoration shall be completed. Construct Townline Road from Station 203+48 'TL' to Station 212+00 'TL' on the west side of CTH G and from Station 216+00 'TL' to Station 228+25 'TL' on the east side of CTH G.
- Install temporary pavement markings on the lower layer of HMA.
- Relocate the topsoil berm within the Bedrock Grinding site along Townline Road.
- Topsoil berm relocation work along CTH G at the Bedrock Grinding and Rock Road sites may be completed in Stage 1B at the contractor's option.

Prior to the commencement of Stage 2 work, project detour signage shall be erected and CTH G shall be closed to through traffic.

Stage 2A

- Construct CTH G west of the Reference Line (RL) from Station 126+80 ‘G’ to Station 137+75 ‘G’ to Base Aggregate Dense 1 ¼-inch grade.

Stage 2B

- Construct CTH G east of the RL from Station 126+80 ‘G’ to Station 137+75 ‘G’ to Base Aggregate Dense 1 ¼-inch grade.

Stage 3A

- Construct the east side of the RL from Station 137+75 ‘G’ to Station 176+00 ‘G’ to Base Aggregate Dense 1 ¼-inch grade.

Stage 3B

- Construct CTH G east of the RL from Station 137+75 ‘G’ to Station 176+00 ‘G’.

Stage 4

- Construct CTH G from Station 83+77 ‘G’ to Station 126+80 ‘G’ and from Station 176+00 ‘G’ to Station 187+99 ‘G’.
- Construct the curb and gutter medians and corrugated medians in the intersection, except for the Townline Road west of CTH G median (Station 212+00 ‘TL’ – Station 213+60 ‘TL’). This median cannot be complete until the structure (B-53-20) within the project 5966-10-70 (See Stage 5 and “Other Contracts” within these provisions) is complete.
- Construct the complete HMA pavement structure on CTH G and Townline Road east of CTH G.
- All pavement marking, permanent signing, and final restoration shall be complete in this stage except for Townline Road west of CTH G.

Stage 5

- Construct the final median work and upper layer of HMA on Townline Road west of CTH G
- Finish Traffic Signals at the Townline Road intersection
- This stage cannot be complete until Segment 3 is complete.
- If Segment 3 is complete prior to Stage 4, Stage 5 can be eliminated and all median and finish work can be completed in Stage 4.

Note: The contractor may elect to complete the earthwork and base aggregate work of Stage 4 with Stage 2 or Stage 3 in order to balance common excavation quantities. The following stipulations shall apply:

- A revised Traffic Control plan is submitted to the engineer 10 days prior to the pre-construction conference and is approved by the engineer.
- All local traffic is maintained in accordance to the traffic control cross sections and following the “Traffic” article of these provisions.

- Work near the County Materials driveway and the turning radius at Townline Road is completed before any other work.
- Access is maintained to residences and businesses at all times.

Segment 3 – CTH G from Sunny Lane to STH 11 (Project 5966-10-70)

- Construct CTH G from project limit south of Sunny Lane to STH 11 including Structure B-53-291.
- Do not start removal of B-53-20 until Stage 2A of Segment 2 is completed to allow County Materials beam trucks to access STH 11.
- Perform grading work between Station 205'G'+66 RT and Station 225'G'+90 RT within a two week timeframe to allow the adjacent property owner to remove and replace the boundary fence to accommodate cattle grazing. Contact Ben Coopman, Director of Public Works/Highway Commissioner with Rock County at (608) 757-5450 for coordination with the property owner.
- Do not remove the Detroit Avenue intersection with CTH G and construct the cul-de-sac until the Sage Street intersection with STH 11 is completed in Stage 4 of Segment 4.

Segment 4 – STH 11 and CTH G from STH 11 to Venture Court (Project 5966-10-71)

Stage 1A

- Construct storm sewer across the outside lane and shoulder of eastbound STH 11 at Sage Street.
- Place temporary asphalt surface.
- Construct in one night only Monday, Tuesday, Wednesday or Thursday night between 8:00 PM and 6:00 AM the following day.

Stage 1B

- Remove the westbound STH 11 right turn islands at the CTH G intersection and place temporary asphalt pavement. Construct in one night only Monday, Tuesday, Wednesday or Thursday between 8:00 PM and 6:00 AM the following day.
- Construct the temporary bicycle/pedestrian crossing across the CTH G median. Construct in one night Monday, Tuesday, Wednesday or Thursday between 8:00 PM and 6:00 AM the following day.
- Construct culvert extensions and storm sewer in the northeast and northwest quadrants of the STH 11/CTH G intersection. Construct temporary drainage pipes and structures in the median of STH 11.
- Construct median crossovers on STH 11 and temporary roadway widening along the median side of eastbound STH 11. Construct as permanent pavement the portion of the westbound STH 11 left turn lane at Sage Street that lies within the median crossover.
- Construct temporary turn lanes at the STH 11/CTH G intersection.

- Construct the permanent sidewalk on the west side of southbound CTH G and the temporary bicycle path connections along the north side of STH 11 at the CTH G intersection.
- Install the temporary traffic signal and remove the existing traffic signal.
- Allow 10 working days for City of Janesville sanitary sewer construction across CTH G south of STH 11 after installation of the temporary traffic signal.

Stage 2A

- Do not start Stage 2A until Stage 2A of Segment 2 is completed to allow County Materials beam trucks to access STH 11.
- Construct the new westbound STH 11 through lanes including the median curb and gutter except for a gap at CTH G. Construct the westbound STH 11 right turn lane.
- Construct the southbound outside lane on CTH G north of STH 11 and the southbound right turn lane.
- Construct the northbound outside lane on CTH G north of STH 11.
- Construct both temporary and permanent portions of the westbound right turn island.
- Construct the temporary bicycle path connections along the north side of STH 11 at the CTH G intersection.
- Construct permanent bicycle path in the northeast quadrant of the CTH G/STH 11 intersection.

Stage 2B

- Construct the CTH G southbound median lane.
- Construct the CTH G southbound left turn lane permanent pavement areas, including the westbound STH 11 outside lane gap.
- Construct the CTH G southbound left turn lane temporary pavement areas.
- Construct the westbound STH 11 pavement gap area at the northbound outside lane of CTH G.
- Construct temporary asphalt ramps in the STH 11/CTH G intersection. Temporary asphalt ramps shall only be constructed between 8:00 PM Monday, Tuesday, Wednesday and Thursday to 6:00 AM the following morning.

Stage 2C

- Construct the median between CTH G left turn lane and CTH G northbound median lane.
- Construct temporary pavement at the south end of the CTH G median north of STH 11.
- Construct temporary asphalt ramps in the STH 11/CTH G intersection. Temporary asphalt ramps shall only be constructed between 8:00 PM Monday, Tuesday, Wednesday and Thursday to 6:00 AM the following morning.

Stage 3A

- Remove the median crossovers, replace the median curb and gutter and restore the median.
- Construct the eastbound and westbound left turn lanes on STH 11 at CTH G.
- Construct the north side of the eastbound slotted left turn island.
- Construct the westbound STH 11 median lane pavement gap area at the southbound and northbound outside lanes of CTH G.
- Construct temporary asphalt ramps in the STH 11/CTH G intersection. Temporary asphalt ramps shall only be constructed between 8:00 PM Monday, Tuesday, Wednesday and Thursday to 6:00 AM the following morning.
- Complete construction of the westbound left turn lane at Sage Street.

Stage 3B

- Construct the remaining portion of the eastbound slotted left turn island and the adjacent eastbound pavement.
- Construct additional pavement in the middle of the CTH G/STH 11 intersection.

Stage 3C

- Construct the remaining portion of the eastbound slotted left turn island and the adjacent eastbound pavement.
- Construct additional pavement on the CTH G northbound through lane in the CTH G/STH 11 intersection.

Stage 3D

- Construct the final portion of southbound CTH G pavement in the STH 11 intersection.

Stage 4

- Remove the temporary pavement and construct the remaining portion of the CTH G southbound left turn lane.
- Construct the eastbound STH 11 right turn lanes at CTH G and at Sage Street.

The contractor is advised that there may be multiple mobilizations for such items as erosion control, traffic control, signing items, temporary pavement markings and other incidental items related to the staging. The department will make no additional payment for said mobilizations. Conform to the schedule of operations and construction staging as shown in the traffic control plans and as described in the Traffic article of these special provisions unless modifications to the schedule are approved in writing by the engineer.

Contractor Coordination

The prime contractor shall have a superintendent or designated representative on the job site during all controlling work operations, including periods limited to only subcontractor work operations, to serve as a primary contact person and to coordinate all work operations.

Hold progress meetings once per week. The meeting shall include the engineer and at least one member of the IH 39 Corridor Management Team. The contractor's superintendent or designated representative and subcontractor's representatives for ongoing subcontract work or subcontractor work expected to begin within the next two weeks are to attend and provide a written schedule of the next weeks' operations. Include begin and end dates or specific prime and subcontractor work operations including lane closures and traffic switches. Invite utilities, local officials and public works officials, and Rock County Sheriff representatives to attend the progress meetings. Agenda items at the meeting will include review of the contractor's schedule and subcontractor's schedule, utility conflicts and relocation schedule, evaluation of progress and pay items, and making revisions, if necessary. Plans and specifications for upcoming work will be reviewed to prevent potential problems or conflicts between contractors."

4. Lane Rental Fee Assessment.

A Description

This special provision describes Lane Rental Fee Assessment to enforce compliance of lane restrictions and discourage unnecessary closures.

A.1 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 contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the the permitted lane closure times. The contractor will not incur a Lane Rental Fee Assessment for closure of lanes during the permitted lane closure times. The designated times of lane closure are during the working hours shown in the tables below:

Permitted Lane Closure Times		
Day of the Week	**CTH G/Huebbe Pkwy intersection**	**CTH G/STH 11 intersection**
Monday	8:00 PM – 11:59 PM	8:00 PM – 11:59 PM
Tuesday	12:00 AM – 6:00 AM 8:00 PM – 11:59 PM	12:00 AM – 6:00 AM 8:00 PM – 11:59 PM
Wednesday	12:00 AM – 6:00 AM 8:00 PM – 11:59 PM	12:00 AM – 6:00 AM 8:00 PM – 11:59 PM
Thursday	12:00 AM – 6:00 AM 8:00 PM – 11:59 PM	12:00 AM – 6:00 AM 8:00 PM – 11:59 PM
Friday	12:00 AM – 6:00 AM	12:00 AM – 6:00 AM

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.2 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:

Time Period in excess of specified time	Reduction per lane of traffic and per direction of traffic	Cumulative reduction per lane of traffic and per direction of traffic
1st 15 minutes	$1,500	$1,500
2nd 15 minutes	$3,000	$4,500
3rd 15 minutes	$4,500	$9,000
4th 15 minutes	$6,000	$15,000

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

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

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

B (Vacant)

C (Vacant)

D Measurement

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

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

E (Vacant)

5. Contract Award and Execution.

Supplement standard spec 103 as follows:

103.9 Mobilization Workshops
103.9.1 Workshop Schedule
After contract award, attend the following workshops. Each workshop is described below and will include but not be limited to the topics outlined below.

Workshop	Timeframe
Initial Work Plan (IWP)	Prior to Notice to Proceed (NTP)
Cost Reduction Incentive and Submittals	Prior to preconstruction meeting
Utility Coordination	Prior to preconstruction meeting
Baseline CPM Progress Schedule	After NTP and submittal of Baseline CPM Progress Schedule

The workshop dates will be scheduled by the engineer after contract award. The engineer may modify the original workshop schedule to ensure attendance by the necessary department and contractor personnel. Workshops may be scheduled earlier than specified if agreed to by all parties. Workshops may be deleted and/or combined depending on the complexity and requirements of the project.

103.9.2 Workshops
103.9.2.1 Initial Work Plan
103.9.2.1.1 General
The Initial Work Plan workshop will provide a forum to discuss and answer questions relative to the proposal, bid schedule, and other questions in the Project Questionnaire described in standard spec 103.9.2.1.2. The Initial Work Plan Workshop will include:

- Contractor responses to the attached Project Questionnaire.
- Department presentation of the use of CPM scheduling on the project.
- Contractor presentation of the conceptual work plan for the project.
- Department and contractor discussion of the level of detail and features in the Initial Work Plan Schedule and the Baseline CPM Progress Schedule.

103.9.2.1.2 Project Questionnaire
Provide the following information in the order shown below. This information will constitute the "Project Questionnaire."

General Information
If a Joint Venture, provide information for each member of the Joint Venture.

- Provide the following information about the company:
- Firm Name
- Address
- Telephone and facsimile numbers; e-mail address

- Contracting Specialties
- Years performing work in contracting specialties
- Geographic areas served
- Total Management Employees and years of service
- Project Managers
- General Superintendents
- Craft Superintendents
- Engineers
- Estimators
- CPM Schedulers

Construction Engineering

- Provide/attach a copy of your Construction Project Manager's resume indicating the manager's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).
- Provide (if applicable) your third-party construction engineering firms.
- Provide plan for Construction surveying.

Subcontractors

- Attach the list of all subcontractors that are intended for this project and the items of work they shall perform.

Permanent Material Suppliers

- Attach the list of all permanent material suppliers that are intended for the project.

Quality Control (where applicable)

- Provide the name of your Construction Quality Control firm and qualifications indicating the firms' experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).
- Provide/attach a copy of your Construction Quality Control Manager's resume indicating the manager's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).
- List the major elements and/or Table of Contents of your Construction Quality Management Program.
- Provide the name of your Independent Quality Control Testing firm (Construction Quality Control Lab) and qualifications indicating the firm's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

Organization Chart

- Provide a functional and personnel Organization Chart showing the authority and responsibilities of each individual identified.

Work Rules

- Provide the plan for hours per day, days per week, and number of shifts for key elements of work; i.e. sewer tunnels, retaining wall construction, roadway excavation, bridge structures, and roadway structural section activities.

Maintenance of Traffic

- Provide the name of your Traffic Control Manager and qualifications indicating the firm's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).
- Attach a copy of your Preliminary Schedule indicating your approach to achieving the substantial completion schedule.
- Include an outline of your approach to the maintenance of traffic and how you shall stage the construction to meet the substantial completion schedule including planned locations for local street and freeway access into and out of the work zones for each stage of construction.

Construction

- Provide the approach (resources, equipment, suppliers, number of crews, and where required ground support systems) for the following activities:
- Retaining wall construction by type of work
- Bridge demolition
- Roadway structural section
- Roadway excavation
- Underground construction
- Office and yard facilities

103.9.2.2 Cost Reduction Incentives and Submittals

The Cost Reduction Incentive (CRI) and Submittals workshop will have two primary topics outlined below:

Cost Reduction Incentives

Identify value enhancing opportunities and consider modifications to the plans and specifications that will reduce either the total cost, time of construction or traffic congestion, without impairing, in any manner, the essential functions or characteristics of the project, including, but not limited to, service life, economy of operation, ease of maintenance, benefits to the traveling public, desired appearance, or design and safety standards.

Submit recommendations resulting from the workshop for approval by the engineer as cost reduction incentive proposals in conformance with the provisions in standard spec 104.10 "Cost Reduction Incentive."

The department and the contractor may be able to complete the CRI Concept process, as specified in standard spec 104.10.2, during the CRI workshop.

Submit CRIs after the CRI workshops that were not introduced at the CRI workshop.

Submittals

The Submittals Workshop will identify the key required submittals for the project, categorize submittals into functional areas, and develop a schedule for submittals and submittal reviews. The workshop participants will at a minimum:

- Review the project special provisions.
- Categorize submittals into functional areas including but not limited to:
- MSE Retaining Walls
- Temporary Shoring
- Falsework and Formwork
- Girder Shop Drawings
- Steel Transportation, Delivery, and Erection
- Structure Demolition Plans
- Pile Hammers and High Capacity Piling
- Concrete/ Asphalt
- Materials
- ITS / Lighting
- Traffic Signals
- Sanitary Sewer and Water
- Permits
- Develop a schedule for submittals.

103.9.2.3 Utility Coordination

The Utility Coordination Workshop will define the scope and schedule of utility relocation work and the respective roles and responsibilities of the project team.

- At a minimum, the following key personnel will attend the Utility Coordination Meeting:
- Department's Utility Coordinator
- Contractor's Project Manager, Foreman, Supervisor
- Designer Team's Utility Coordinator
- Key Utility Company Representative(s)

- At a minimum, the Utility Coordination Meeting will include a review of the following:
- Summary of all required utility relocations on the project.
- Special provisions addressing utility work.
- Sharing of contact information.
- Scheduling of work for utility relocation(s) including critical milestones and staging for the work.

- Contractor's work schedule and anticipated conflicts with the utility's construction schedule.

103.9.2.4 Baseline CPM Scheduling
At the Baseline CPM Scheduling workshop, provide a presentation of the Baseline CPM Schedule. In the presentation, include a discussion of the construction staging and sequencing of the work, understanding of traffic phasing, and application of labor and equipment resources to the work. Address comments raised in the engineer's review.

6. Traffic.

General
The following is a general overview of the traffic control and staging required throughout all stages of the project. The staging requirements are described in the "Prosecution and Progress" article in these special provisions.

Accomplish the construction sequence, including the associated traffic control as detailed in the construction staging section of the plans, and as described in the this article.

Submit a detailed traffic control plan to the engineer for approval if different than the traffic control plan provided in the plan set. Submit this plan ten days prior to the preconstruction conference.

Submit all traffic control change requests to the engineer at least 3 working days prior to an actual traffic control change. A request does not constitute approval.

CTH G and all intersecting side roads will remain open to local traffic at all times. CTH G and all intersecting side roads will be closed to through traffic as stated below and in the plans.

Coordinate and stage all construction activities within the area of local traffic routes, as required to maintain a traveled way conforming to all requirements of this article.

Use drums and barricades to protect open excavations, abrupt drop-offs, etc. The use of such devices shall be incidental to the operation which creates the hazard.

Place roadway signing and temporary pavement markings as detailed on the plans and in conformance to the Manual on Uniform Traffic Control Devices (MUTCD), latest edition.
Traffic Control shall be completely in place by the end of the working day of a traffic switch.

Any drop-offs larger than 2 inches shall have temporary base aggregate dense 1 ¼ -inch "wedged" at no more than a 3:1 against the driving lane. See the staging typical sections for more information. Payment for wedging and removing and/or reusing the wedging material will be incidental to Base Aggregate Dense 1 ¼ Inch bid item.

Local Traffic Access to Project:
Conduct operations in a manner that will cause the least interference to traffic. The contractor shall use flagging operations, when necessary, to accommodate local traffic.

Maintain access to all residences and business along CTH G at all times throughout the project. The contractor shall build temporary driveways if necessary. The construction and removal and/or reuse of said driveways will be incidental to the Base Aggregate Dense 1 ¼ Inch bid item. The contractor shall use flagging operations, when necessary, to accommodate local traffic.

Advance Notification
Notify the following agencies one week in advance of beginning work and closing streets:

- City of Janesville: Emergency Services, School District, and Transit System (JTS)
- City of Beloit: Emergency Services, School District, and Transit System (BTS)
- Town of Beloit: Emergency Services
- Rock County: Emergency Services, Director of Public Works
- Beloit Turner High School

Advanced notification will be considered incidental to the Traffic Control (Project) bid item.

Traffic Operations During all Stages:
Maintain access to businesses and residences at all times.
Maintain emergency access on CTH G and all intersecting side roads at all times.

Segment 1 – CTH G from Huebbe Parkway to Philhower Road (Project 5966-10-70)

CTH G shall remain open to through traffic through the completion of Stage 1 as noted below.

Stage 1 - Huebbe Parkway to Philhower Road
Maintain CTH G open to 2-way through traffic by moving centerline west 2 feet and creating two 10-foot travel lanes. Flag traffic for storm sewer lead construction conforming to requirements of S.D.D. "Traffic Control for Lane Closure (Suitable for Moving Operations)". Sidewalk on Huebbe Parkway will be closed at the western most driveway of the Beloit Memorial Hospital. Pedestrians will be allowed to cross Huebbe Parkway using the temporary curb ramps at this location to the north side of the roadway. There are no existing sidewalks on CTH G from Huebbe Parkway to Philhower Road.

Stage 1 - USH 51 and Cranston Road
Construct under traffic, maintaining at least one traffic lane in each direction on USH 51 and Cranston Road conforming to requirements of S.D.D. "Traffic Control for Lane Closure (Suitable for Moving Operations)" and/or S.D.D. "Traffic Control, Single Lane Closure, Non-Freeway/Expressway".

Stage 1A – Storm sewer connection at Huebbe Parkway
Construct between 8:00 PM Monday, Tuesday, Wednesday and Thursday to 6:00 AM the following morning. Close the northbound right turn lane on CTH G. Maintain one lane of traffic in each direction on CTH G and on Huebbe Parkway east of CTH G.

Stage 1B – Storm sewer connection at Huebbe Parkway
Construct between 8:00 PM Monday, Tuesday, Wednesday and Thursday to 6:00 AM the following morning. Close the westbound right turn lane and westbound through traffic lane on Huebbe Parkway. Maintain one lane of traffic in each direction on Huebbe Parkway east of CTH G.

Stage 1C – Storm sewer connection at Huebbe Parkway
Construct between 8:00 PM Monday, Tuesday, Wednesday and Thursday to 6:00 AM the following morning. Comply with the Stage 1A traffic requirements except for temporary pavement marking for work on south half of Huebbe Parkway. Comply with Stage 1B traffic requirements except for temporary pavement marking for work on north half of Huebbe Parkway.

Stage 2 – CTH G, Huebbe Parkway to Philhower Road
CTH G shall be closed to through traffic. Through traffic will be detoured using Cranston Road, USH 51 and STH 11. Maintain two-lane access (10-foot minimum lanes) for adjacent property owners using a portion of the northbound lane and the temporary widening constructed in Stage 1. Maintain local access traffic through the work zone for Gale Drive, Inman Parkway, East Zick Drive, East Williams Drive, East Security Road and Philhower Road. The sidewalks constructed in Stage 2 on the west side of CTH G will be closed to pedestrians until the sidewalks on the east side of CTH G (constructed in Stage 3) are completed.

Stage 2A – Inman Parkway (Westbound Construction)
Close Inman Parkway to through traffic. Allow for two-way local access traffic using flagging during work hours. Allow for two-way traffic outside of working hours using temporary base aggregate surface.

Stage 2B – Inman Parkway (Eastbound Construction)
Close Inman Parkway to through traffic. Allow for two-way local access traffic using flagging during work hours. Allow for two-way traffic outside of working hours using temporary base aggregate surface.

Stage 3 – CTH G, Huebbe Parkway to Philhower Road
CTH G shall be closed to through traffic. Through traffic will be detoured using Cranston Road, USH 51 and STH 11. Maintain two-lane access (10-foot minimum lanes) for adjacent property owners using the southbound half of CTH G. Maintain local access traffic through the work zone for Colony Court, Bombardier Driveway, YMCA Driveway, Walton Lane, Thomas Drive and Philhower Road.

Segment 2 – CTH G from Philhower Road to Sunny Lane (Project 5966-00-72, -73)

Traffic Operations During all Stages:
Maintain one 15 foot lane (12' lane and 3' shoulder) from Station 83+77 'G' to Station 126+80 'G' and from Station 176+00 'G' to Station 187+99 'G' at all times.

Maintain two 12 foot lanes (10' lane and 2' shoulder) from Station 126+80 'G' to Station 176+00 'G' at all times.

Maintain County Material's driveway and the movement of OSOW turning movements as stated in the "Business Coordination" article of this provision.

Maintain crossing traffic at Station 126+80 'G' from Rock Road's driveway to County Material's driveway.

Traffic Operations Stage 1A
Close the shoulder at Station 144+00 'G' RT to construct the Bedrock Grinding Site's (NE quadrant of the CTH G/ Townline intersection) temporary driveway. Use flagging operations if necessary.

Traffic Operations Stage 1B:
Close Townline Road to through traffic. CTH G shall remain open. There will be no detour for this stage.

The contractor is not obligated to maintain access to the driveway at Station 208+75 'TL' LT and Station 219+00 'TL' RT during this stage.

County Materials will haul north on CTH G to STH 11 during this stage.

Traffic Operations Stage 2A:
Close CTH G and Townline Road to through traffic for the duration of the project. Detour through traffic around CTH G for the duration of the project. See the detour plan for more information.

All local traffic will be directed to Townline Road for access to and from CTH G for the duration of the project.

Traffic will be maintained on the east side of RL from Station 126+80 'G' to Station 137+75 'G'

County Materials will haul north on CTH G to STH 11 during this stage.

Traffic Operations Stage 2B:
Traffic will be maintained on the west side of the RL from Station 126+80 'G' to Station 137+75 'G'.

County Materials will haul north on CTH G to west on Townline Road to USH 51 during this stage.

Traffic Operations Stage 3A:
Traffic will be maintained on the east side of the RL from Station 137+75 'G' to Station 176+00 'G'.

County Materials will haul north on CTH G to west on Townline Road to USH 51 during this stage.

Traffic Operations Stage 3B:
Traffic will be maintained on the east side of the RL from Station 137+75 'G' to Station 176+00 'G'.

County Materials will haul north on CTH G to west on Townline Road to USH 51 during this stage.

Traffic Operations Stage 4:
Traffic will be maintained on the newly constructed gravel grade.

Flagging operations shall be used during the paving operations for local traffic.

County Materials will haul north on CTH G to west on Townline Road to USH 51 until project 5966-10-70 is complete. When project 5966-10-70 is complete County Materials will haul north on CTH G to STH 11.

Traffic Operations Stage 5:
Local traffic will be maintained in the final configuration on CTH G.

The intersection of CTH G and Townline Road will be stopped controlled until the final signals can be installed.

Segment 3 – CTH G from Sunny Lane to STH 11 (Project 5966-10-70)

CTH G shall remain open to through traffic through the completion of Stage 1, Segment 2 and the completion of Stage 1 work at the USH 51/Cranston Road intersection. After completion of Stage 1, detour through traffic using Cranston Road, USH 51 and STH 11. Close CTH G to through traffic from project limit south of Sunny Lane to STH 11. Provide access across existing Structure B-53-20 for County Materials beam trucks until Stage 2A of Segment 2 is completed. Maintain access for adjacent property owners on the existing pavement or a minimum 15-foot wide base aggregate surface. Provide access to property owners south of B-53-291 from Sunny Lane. Provide access for property owners north of B-53-291 from STH 11. Maintain local access through the work zone for Sunny Lane. Maintain access to Detroit Avenue from CTH G until the Sage Street/STH 11 intersection construction is completed.

Segment 4 – STH 11 and CTH G from STH 11 to Venture Court (Project 5966-10-71)

Stage 1A
Close the outside eastbound lane of STH 11 for one night only Monday, Tuesday, Wednesday or Thursday night between 8:00 PM and 6:00 AM the following day to construct the south portion of the storm sewer at Sage Street. Maintain one lane of traffic (12-foot minimum width) on eastbound STH 11. Maintain all existing traffic lanes on westbound STH 11 and in both directions on CTH G north of STH 11.

Stage 1B
Maintain one lane of traffic (12-foot minimum width) in each direction on STH 11 using the outside lanes. Maintain all existing traffic lanes on northbound CTH G north of STH 11. Maintain one southbound through traffic lane (12-foot minimum width) and left and right turn lanes on southbound CTH G north of STH 11. Maintain existing traffic conditions on CTH G south of STH 11. Maintain access on the bicycle path across CTH G using existing pavement. Close the westbound STH 11 right turn lane to CTH G and the southbound CTH G right turn lane to STH 11 for one night only Monday, Tuesday, Wednesday or Thursday night between 8:00 PM and 6:00 AM the following day to remove the right turn islands and to construct the temporary bicycle/pedestrian crossing across the CTH G median.

Stage 2A
Maintain one lane of traffic (12-foot minimum width) in each direction on STH 11 using the median crossovers and the eastbound roadway of STH 11. Maintain a 12’ eastbound left turn lane and 12’ eastbound and westbound right turn lanes at the CTH G intersection.

Maintain one lane of traffic (12-foot minimum width) in each direction on CTH G on the existing roadways. Maintain the existing southbound left turn lane at the STH 11 intersection. Combine the southbound right turn lane with the through lane. Maintain access on the bicycle path across CTH G using temporary and permanent pavement.
Maintain access for local traffic to CTH G south of STH 11.

Stage 2B
Maintain one lane of traffic (12-foot minimum width) in each direction on STH 11 using the median crossovers and the eastbound roadway of STH 11. Maintain a 12’ eastbound left turn lane and 12’ eastbound right turn lanes at the CTH G intersection. Provide a westbound to northbound right turn lane (12-foot minimum width) on the new westbound roadway of STH 11. Provide a southbound to westbound right turn lane (12-foot minimum width) on the new westbound roadway of STH 11. Maintain one lane of traffic (12-foot minimum width) for southbound CTH G on the newly constructed lanes. Maintain one lane of traffic (12-foot minimum width) for northbound CTH G on the existing northbound median lane. Maintain access for local traffic to CTH G south of STH 11. Maintain access on the bicycle path across CTH G using temporary and permanent pavement. Maintain CTH G traffic through the STH 11 intersection with flagging for one night only Monday, Tuesday, Wednesday or Thursday night between 8:00 PM and 6:00 the following day to construct temporary asphalt ramps between the existing and new pavement.

Stage 2C
Maintain one lane of traffic (12-foot minimum width) in each direction on STH 11 using the median crossovers and the eastbound roadway of STH 11. Maintain a 12' eastbound left turn lane and 12' eastbound right turn lanes at the CTH G intersection. Provide a westbound to northbound right turn lane (12-foot minimum width) on the new westbound roadway of STH 11. Provide a southbound to westbound right turn lane (12-foot minimum width) on the new westbound roadway of STH 11. Maintain one lane of traffic (12-foot minimum width) for southbound CTH G on the newly constructed lanes. Maintain one lane of traffic (12-foot minimum width) for northbound CTH G on the newly constructed outside lane. Maintain access for local traffic to CTH G south of STH 11. Maintain access on the bicycle path across CTH G using temporary and permanent pavement. Maintain CTH G traffic through the STH 11 intersection with flagging for one night only Monday, Tuesday, Wednesday and Thursday night between 8:00 PM and 6:00 AM the following day to construct temporary asphalt ramps between the existing and new pavement.

Stage 3A
Maintain one lane of traffic (12-foot minimum width) in each direction on STH 11 using the outside lanes. Maintain a southbound through/left turn lane and a right turn lane (12-foot minimum width) on CTH G using the newly constructed right and left turn lanes. Maintain one lane of traffic (12-foot minimum width) for northbound CTH G on the newly constructed outside lane. Maintain access for local traffic to CTH G south of STH 11.

Maintain access on the bicycle path across CTH G using temporary and permanent pavement. Maintain CTH G traffic through the STH 11 intersection with flagging for one night only Monday, Tuesday, Wednesday and Thursday night between 8:00 PM and 6:00 AM the following day to construct temporary asphalt ramps between the existing and new pavement.

Stage 3B
Maintain one lane of traffic (12-foot minimum width) in each direction on STH 11 using the outside lanes. Maintain a southbound through/left turn lane and a right turn lane (12-foot minimum width) on CTH G using the newly constructed right turn and through lanes. Maintain one lane of traffic (12-foot minimum width) for northbound CTH G on the newly constructed outside lane. Maintain access for local traffic to CTH G south of STH 11.

Maintain access on the bicycle path across CTH G using temporary and permanent pavement.

Stage 3C
Maintain one lane of traffic (12-foot minimum width) in each direction on STH 11 using the outside lanes. Maintain a southbound through/left turn lane and a right turn lane (12-foot minimum width) on CTH G using the newly constructed right turn and through lanes. Maintain one lane of traffic (12-foot minimum width) for northbound CTH G on temporary pavement and the newly constructed median lane. Maintain access for local

traffic to CTH G south of STH 11. Maintain access on the bicycle path across CTH G using temporary and permanent pavement.

Stage 3D
Maintain one lane of traffic (12-foot minimum width) in each direction on STH 11 using the outside lanes. Maintain a southbound through/left turn lane and a right turn lane (12-foot minimum width) on CTH G using the newly constructed right turn and left turn lanes. Maintain one lane of traffic (12-foot minimum width) for northbound CTH G on temporary pavement and the newly constructed median lane. Maintain access for local traffic to CTH G south of STH 11. Maintain access on the bicycle path across CTH G using temporary and permanent pavement.

Stage 4
Maintain one lane of traffic (12-foot minimum width) in each direction on STH 11 using the median lanes. Maintain one lane of traffic (12-foot minimum width) on northbound CTH G north of STH 11 using the outside lane. Maintain one southbound through/left lane (12-foot minimum width) and a right turn lane on southbound CTH G north of STH 11 using the newly constructed through traffic and right turn lanes. Maintain one eastbound and one westbound left turn lane on STH 11 using the newly constructed lanes. Maintain access on the bicycle path across CTH G using the permanent pavement. Maintain access for local traffic to CTH G south of STH 11.

7. Holiday Work Restrictions.

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

- From noon Friday, May 22, 2015 to 6:00 AM Tuesday, May 26, 2015 for Memorial Day;
- From noon Friday, July 3, 2015 to 6:00 AM Tuesday, July 7, 2015 for Independence Day;
- From noon Friday, September 4, 2015 to 6:00 AM Tuesday, September 8, 2015 for Labor Day.

107-005 (20050502)

8. Utilities.

This contract does not come under the provision of Administrative Rule Trans 220.
107-065 (20080501)

There are several known underground and overhead facilities located within the project limits. There are known utility adjustments required for the construction project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to

the utilities that have facilities in the area as required per statutes. Use caution to ensure integrity of underground facilities and maintain code clearance from overhead facilities. Adjustments in the location of certain items may be necessary as directed by the engineer, when it becomes evident that a utility conflict could occur.

Projects 5966-00-72 and 5966-00-73

Alliant Energy-Electric

Overhead Facilities

Alliant has overhead facilities located on the east side of the CTH G from Station 83+77'G' to Station 149+15'G' and then crosses CTH G and continues along the west side of CTH G from Station 151+25'G' to Station 176+11'G' and then heads west away from the project area. At Station 105+71'G', RT the overhead facility crosses CTH G to Station 105+74'G', LT. The overhead facility continues south to Station 104+96'G', LT and becomes Rock Energy Cooperative's overhead electric. The overhead also crosses CTH G at Station 145+78'G', Station 149+15'G', and Station 162+95'G'. Alliant also has overhead facilities that are located on both sides of Townline Road from Station 203+48'TL' to 228+25'TL'. Alliant shares the use of the ATC poles on the north and south sides of Townline Road from Station 203+48'TL' to CTH G. Alliant's overhead facility crosses CTH G at Station 136+12'G' and Station 137+03'G'. Alliant plans to replace the entire overhead electric system along CTH G and will remove the overhead facility along the south side of Townline Road east of CTH G. Alliant Energy will relocate most of the overhead facilities prior to construction but, some facilities will need to be relocated during construction as discussed below:

Relocated overhead facility locations (prior to construction) are as follows:

- Alliant will relocate along the east right-of-way of CTH G from 83+77'G' to 106+00'G'. At Station 106+00'G', RT Alliant's overhead line connects to an ATC pole and crosses over CTH G. The overhead line also crosses CTH G at Station 87+67'G' connecting to the Rock Energy pole at Station 87+90'G', LT.
- Alliant will install temporary overhead lines along the west right-of-way of CTH G from Station 146+23'G' to 151+26'G'. These lines will be removed once the permanent overhead lines are installed on the east side of CTH G from Station 137+00'G' to Station 151+26'G'.
- Alliant will relocate along the west right-of-way of CTH G from Station 151+26'G' to Station 176+13'G'. Alliant will be outside of the right-of-way from Station 159+50'G' to Station 176+13'G'.
- Alliant will install a new overhead crossing from Station 220+38'TL', RT to 220+48'TL', LT on Townline Road.

Relocated overhead facility locations (during construction) are as follows:

- Alliant will relocate along the west right-of-way of CTH G from Station 106+00'G' to Station 137+26'G' crossing Townline Road at Station 213+45'TL'. Alliant will relocate after storm sewer and grading is completed in Stage 2A. Contact Dean Copp from Alliant Energy after the completion of Stage 2A to coordinate Alliant's relocations.

- Alliant will relocate along the east right-of-way of CTH G from Station 137+00'G' to Station 151+26'G' crossing CTH G at Station 151+26'G'. Alliant will relocate after grading is completed in Stage 3A. Contact Dean Copp from Alliant Energy after the completion of Stage 3A to coordinate Alliant's relocation.

Underground Facilities:
Alliant has underground facilities along the east side of CTH G from Station 92+41'G' to 92+61'G', 127+19'G' to Station 127+89'G', and from 150+75'G' to 151+26'G'. Alliant also has underground electric along the north side of Townline Road from Station 209+40'TL' to Station 212+72'TL',which will remain in place, and along the south side of Townline Road from Station 212+72'TL' to 213+84'TL',which will no longer be in service and left in place. The underground electric crosses Townline Road at Station 212+72'TL' and will remain in place. Alliant Energy plans to relocate the underground facilities either prior to construction or after construction. The existing facilities will no longer be in service and left in place. Alliant will install a new 3 phase underground line on the east side of CTH G outside of the project limits from Station 124+00'G' to 128+00'G' (approximately 180' RT) and along the south side of Townline Road from 215+77'TL' to 220+38'TL'. Alliant will also install a new underground line from the existing line at Station 212+72'TL', RT to the new electric service meter pedestal used to power the traffic signals.

There are no anticipated conflicts with Alliant Energy's overhead and underground facilities. The relocation work scheduled to be completed prior to construction will be finished by February 2015. The field contact is Dean Copp, 935 WBR Townline Road, Beloit, WI 53511, office: (608) 364-6431, mobile: (608) 751-4440, email: deancopp@alliantenergy.com.

Alliant Energy-Gas
Alliant has an 8-inch steel gas main along the east side of CTH G from Station 83+77'G' to Station 85+20'G'with a service crossing CTH G at Station 85+08'G'. Alliant will relocate along the west right-of-way of CTH G from 83+77'G' to Station 84+30'G' with services going west off the 4-inch plastic main. The existing gas main will be degassed and remain in place. Alliant also has four gas mains that parallel Townline Road from Station 203+48'TL' to Station 228+25'TL' as discussed below:

- Alliant has a 14-inch high pressure steel gas main along the north side of Townline Road that crosses CTH G at Station 137+00'G'. Alliant will relocate the 14-inch steel main to the north side of the existing right-of-way from Station 208+00'TL' to 218+50'TL' crossing CTH G at Station 137+15'G'. West of CTH G the relocated 14-inch main will be approximately 8 feet north of the right-of-way and east of CTH G the main will be 3 to 5 feet north of the right-of-way. The existing 14-inch main from Station 208+00'TL' to 218+50'TL' will be degassed and remain in place.
- Alliant has a 4-inch plastic gas main south of the existing roadway that will be relocated from Station 203+48'TL' to 228+25'TL'. The 4-inch main will be relocated 8 to 10 feet north of the south right-of-way of Townline Road west of CTH G and approximately 10 feet south of the south right-of-way of Townline Road east of

CTH G. The relocated 4-inch gas main will cross CTH G at Station 135+75'G'. The existing 4-inch main will be degassed and remain in place.

- Alliant has a 10-inch high pressure steel gas main between the 4-inch gas main and the south right-of-way of Townline Road that will be lowered from Station 203+48'TL' to 205+50'TL'. The 10-inch main will also be relocated approximately 3' feet north of the south right-of-way of Townline Road west of CTH G and approximately 6 feet south of the south right-of-way of Townline Road east of CTH G. The relocated 10-inch steel gas main will cross CTH G at Station 136+09'G'. The existing 10-inch steel main will be degassed and remain in place, but may be in conflict with the storm sewer. Contact Dean Copp from Alliant Energy for removal of the 10-inch main if needed.
- Alliant has a 20-inch high pressure steel gas main that is south of the south right-of-way of Townline Road and crosses CTH G at Station 135+86'G'. Alliant will relocate the 20-inch steel main deeper from Station 213+28'TL' to 213+88'TL'. No construction equipment will be allowed to work within 5' of either side of the 20-inch steel main without the express permission from Alliant Energy with the exception of the CTH G roadway crossing and the driveway crossing at Station 219+10'TL'. In locations where construction work will occur near the gas main Alliant may provide protection over the gas main. Notify Dean Copp from Alliant Energy in advance of any construction work near the gas main.

Notify Dean Copp from Alliant Energy any time you will be excavating within 18" of the gas mains to allow Alliant personnel to be present. The relocation work is scheduled to be completed by February 2015. The field contact is Dean Copp, 935 WBR Townline Road, Beloit, WI 53511, office: (608) 364-6431, mobile: (608) 751-4440, email: deancopp@alliantenergy.com.

American Transmission Company (ATC)-Electric

ATC has overhead electric facilities along the east side of CTH G from Station 106+00'G' to Station 134+97'G'. ATC crosses CTH G from Station 134+97'G', RT to Station 136+04'G ', LT and at Station 106+00'G'. ATC also has overhead electric facilities along the north side of Townline Road from Station 203+48'TL' to Station 228+25'TL' and along the south side from Station 203+48'TL' to Station 212+78'TL'. No conflicts are anticipated for ATC overhead electric. Contact Tom Betthauser a minimum of 5 working days prior to any change in grade of more than 2 feet and within a distance of 20 feet of any transmission line structure. The electric lines along the east side of CTH G and south side of Townline Road are 69 kV and 138 kV and the electric lines along the north side of Townline Road are 138kV and will remain energized during construction. Maintain minimum OSHA electrical approach distances at all times. Caution should be used while working around all transmission facilities to avoid damage. Should a line outage be required notify ATC a minimum of 120 days in advance of the required outage.

The field contact is Tom Betthauser, W234 N2000 Ridgeivew Parkway Court, Waukesha, WI 53187, office: (262) 832-8717, mobile: (262) 993-1296, email: tbetthauser@atcllc.com

AT&T Wisconsin-Fiber Optic & Telephone
AT&T has one underground telephone line and one underground fiber optic line along the east side of CTH G from Station 83+77'G' to Station 176+00'G'where the telephone line crosses to the east side of CTH G and the fiber continues on the west side to Station 187+99'G. AT&T has another telephone line along the west side of CTH G from Station 83+77'G'to Station 176+00'G' where a second telephone line joins and continues to Station 184+00'G' where a third telephone line joins and continues along the west side to Station 187+99'G'. The telephone and fiber optic cross Townline Road at Station 213+89'TL', Station 214+74'TL', and Station 214+92'TL'. AT&T also has an underground telephone line along the north side of Townline Road from Station 214+92'TL' to Station 228+25'TL'. AT&T will relocate one 300 pair telephone and one fiber optic closer to the east right-of-way along CTH G (5' west of right-of-way) from Station 83+77'G' to Station 135+28'G' where the telephone and fiber optic will cross CTH G to the west side and will continue along the west right-of-way (5' east of right-of-way) of CTH G from Station 135+28'G' to Station 187+99'G'. The telephone and fiber optic will cross Townline Road at Station 212+85'TL'. AT&T will relocate three telephone lines along the south right-of-way (1' north of right-of-way) of Townline Road from Station 215+00'TL' to Station 228+25'TL' with roadway crossings at Station 220+51'TL' and Station 227+56'TL'. All existing telephone and fiber optic facilities will no longer be in service and left in place.

There are no anticipated conflicts with the crossings. The relocation work is scheduled to be completed by June 2015. Contractor shall coordinate construction activities with AT&T if relocation work is in progress. The field contact is Carol Anason, 316 West Washington Avenue, Madison, WI 53703, office: (608) 252-2385, mobile: (920) 475-2799, email: ca2624@att.com .

Windstream (Mcleod/PAETECH)-Fiber Optic
Windstream has one underground fiber optic line along the east side of CTH G from Station 83+77'G' to Station 187+99' G' that crosses Townline Road at Station 215+08'TL'. Windstream will relocate overhead fiber optic onto Alliant Energy poles from Station 83+77'G' to Station 103+62'G' along the east side of CTH G. Windstream will relocate underground fiber optic along the east right-of-way of CTH G (approximately 5' west of right-of-way) from Station 103+62'G' to Station 187+99'G' and cross Townline Road at Station 216+05'TL'. The existing fiber optic will no longer be in service and will be left in place.

There are no conflicts anticipated with the relocation work. The relocation work is scheduled to be completed by June 2015. Contractor shall coordinate construction activities with Windstream if relocation work is in progress. The field contact is Jim Kostuch, 13935 Bishops Drive, Brookfield, WI 53005, office: (262) 792-7938, email: james.kostuch@windstream.com .

Rock Energy Cooperative-Electric
Rock Energy has overhead electric facilities along the west side of CTH G from Station 83+77'G' to Station 104+96'G'. Rock Energy will relocate closer to the west right-of-way of CTH G from Station 83+77'G' to Station 87+90'G'. The existing facilities will be removed.

There are no conflicts anticipated with the relocations. The relocation work is scheduled to be completed by winter 2014. The field contact is Lynn Maier, 2815 Kennedy Road, P.O. Box 1758, Janesville, WI 53543, office: (608) 752-4550, mobile: (608) 289-4149, email: lynnm@rock.coop .

Projects 5966-10-70 and 5966-10-71

Alliant Energy (WP&L) - Electric
Alliant has overhead electric lines along the east side of CTH G from Huebbe Parkway to Philhower Road and along the west side of CTH G from STH 11 to 500 feet south of STH 11. Overhead electric crossings are located at Sta. 13'G'+83, Station 16'G'+68, Station 22'G'+42, Station 26'G'+60, Station 39'G'+54, Station 45'G'+02, Station 49'G'+77, Station 52'G'+82, Station 54'G'+63, Station 55'G'+91, Station 57'G'+88, Station 60'G'+94, Station 66'G'+24, Station 69'G'+43, Station 74'G'+11, Station 74'G'+55, Station 330'G'+70, and Station 334'G'+43. Overhead electric lines are also located along the north side of STH 11 for the entire length of the project. A buried electric crossing is located at Station 68'G'+15. Alliant plans to replace the entire overhead electric system between Huebbe Parkway and Philhower Road with new overhead lines located along the east right-of-way line. The new overhead line will be 8 feet inside the east right-of-way line from Huebbe Parkway to Station 23'G'+96 where it will shift to 2 feet east of the back of the proposed sidewalk. The new overhead line will be 2.5 feet east of the back of the proposed sidewalk at the CTH BT intersection and then will shift to 8 feet inside the east right-of-way line from Station 29'G'+48 to Station 51'G'+00. From Station 51'G'+00 to Station 72'G'+30, the new overhead line will be located between 2 feet east of the back of walk and 2 feet inside the right-of-way line. Between Station 72'G'+30 and Philhower Road the new overhead line will be located between 7 feet and 25 feet inside the east right-of-way line. A new overhead electric line will also be located along the north side of Inman Parkway between the proposed ditch bottom and the north right-of-way line. Overhead electric crossings of CTH G will be reused or will be replaced in approximately the same locations as the existing crossings. The overhead electric system along STH 11 will be relocated farther north between Station 195'AW'+00 and Station 211'AW'+00. The new line will be between 65 feet and 69 feet north of the 'AW' reference line west of CTH G and between 54.5 feet and 61.5 feet north of the 'AW reference line east of CTH G. The existing overhead crossing of CTH G north of STH 11 will remain in place. A new overhead crossing of STH 11 will be installed west of CTH G from Station 200'AW'+30 to Station 200'AE'+65. This line will then turn east and cross CTH G at Station 331'G'+11 and will connect to the existing overhead electric lines east CTH G north of Detroit Avenue. The relocations are anticipated to start in March 2015 and be completed in 60 working days. This work will need to be

coordinated with highway construction. The field contact is Dean Copp, 935 WBR Townline Road, Beloit, WI 53511, office: (608) 364-6431, mobile: (608) 751-4440, email: deancopp@alliantenergy.com.

Alliant Energy (WP&L) - Gas

Alliant has gas mains located along the east side of CTH G from Huebbe Parkway to Philhower Road, along the east side of CTH G from Venture Court to 2000' south of STH 11 and along the south right-of-line of STH 11 east of CTH G. They plan to relocate the entire gas system from Huebbe Parkway to Philhower Road. The new gas mains will generally be placed 2 feet below the proposed grade except for locations as noted below where they will be deeper. New gas main will be constructed along the west side of CTH G 10 feet inside the west right-of-way line from Huebbe Parkway to Station 22'G'+72 where it will cross to the east side. The gas crossing will be approximately 7.5 feet deep. Additional new gas main will be constructed on the west side of CTH G from Station 54'G'+67 to Station 83'G'+78 between 4 feet and 8 feet inside the west right-of-way line. Two new gas mains will be constructed along the east side of CTH G from Huebbe Parkway to Station 28'G'+00. One main will be located in a private easement east of the right-of-way and the other gas main will be located between 3 feet and 11 feet inside the east right-of-way line. From Station 28'G'+00 to Station 51'G'+00 the new gas main will be located 10 feet inside the east right-of-line where it will shift to a private easement located east of the right-of-way. The new gas main will remain in the private easement until Thomas Road where it will located 6 feet inside the east right-of-way line until Station 64'G'+75 where it crosses to the west side of CTH G. The gas main crossing will be approximately 5.5 feet deep. New gas main crossings of CTH G will be constructed at the north side Inman Parkway approximately 5 feet deep, the south side of Zick Drive approximately 5.5 feet deep, and the south side of Williams Drive approximately 8 feet deep. New gas main will also be constructed 5 feet west of the east right-of-way line of CTH G from Station 309'G'+50 to Station329'G'+50. The new gas main will be approximately 4 feet deep. The relocations are anticipated to start in late March 2015 and be completed in 40 working days. This work will need to be coordinated with highway construction. The field contact is Dean Copp, 935 WBR Townline Road, Beloit, WI 53511, office: (608) 364-6431, mobile: (608) 751-4440, email: deancopp@alliantenergy.com.

AT&T Wisconsin – Fiber Optic and Telephone

AT&T has buried telephone cables along both sides of CTH G the entire length of the project north of Gale Drive. They plan to replace their entire system with new cables along the east side of CTH G from Gale Drive to Philhower Road. The new cables will be generally located 5 feet inside the east right-of-way and 6 feet deep from Gale Drive to Colony Court, 1 foot inside the right-of-way and 6 feet deep from Colony Court to the north side of CTH BT, 5 feet inside the east right-of-way and 3 feet deep from north of CTH BT to Station 41'G'+50, 5 feet inside the east right-of-way and 6 feet deep from Station 41'G'+50 to Station 43'G'+00, 1 foot inside the east right-of-way and 3 feet deep from Station 43'G'+00 to Station 51'G'+00, 1-foot inside the east right-of-way and 6 feet deep from Station 51'G'+00 to Sta 65'G'+00, and 5 feet inside the east right-of-way and 6 feet deep from Station 65'G'+00 to Station 83'G'+78. New underground crossings will

be installed at Station 45'G'+30, at Williams Drive, at Security Road, at Thomas Drive and at Philhower Road. New cable will be buried along the west side of CTH G from Sunny Lane to STH 11. The cable will be 2 feet inside the west right-of-way line and 6 feet deep from Sunny Lane to Station 248'G'+50, 4 feet inside the west right-of-way line and 6 feet deep from Station 248'G'+50 to Station 300'G'+00, 2 feet inside the west right-of-way line and 6 feet deep from Station 300'G'+00 to Station 302'G'+00, 2 feet inside the west right-of-way line and 5 feet deep from Station 302'G'+00 to Station 303'G'+00, 2 feet inside the west right-of-way line and 6 feet deep from Station 303'G'+00 to Sa. 318'G'+00, 2 feet inside the west right-of-way line and 9feet deep from Station 318'G'+00 to Station 319'G'+50, and 2 feet inside the west right-of-way line and 6 feet deep from Station 319'G'+50 to Station 337'G'+00. New cable crossings will be bored under STH 11 at Station 201'AE'+75, 6 feet deep, and under CTH G at Station 213'G'+75, 6 feet deep; Station 227'G'+33, 6 feet deep; Station 265'G'+47, 6 feet deep; Station 281'G'+47, 6 feet deep; Station 330'G'+00, 6 feet deep; and 334'G'+00, 6 feet deep. The relocations are anticipated be completed in 60 working days. This work will need to be coordinated with highway construction. The field contact is Carol Anason, 316 West Washington Avenue, Madison, WI 53703, office: (608) 252-2385, mobile: (920) 475-2799, email: ca2624@att.com.

City of Beloit - Water

The City of Beloit has water mains located along the west side of CTH G from Huebbe Parkway to Williams Drive, with a crossing of CTH G on the north side of Colony Court. The water main between Station 14'G'+50 and Station 16'G' +50 and between 41'G'+50 and 50'G'+50 will be replaced at a lower elevation. The relocations except for water valve box adjustments, are anticipated to be started in early 2015, will be completed by May 2015. Water valve box adjustments will be done concurrently with the work under this project. This work will need to be coordinated with highway construction. The field contact is Michael Flesch, 100 State Street, Beloit, WI 53511, (608) 364-6690, email: fleschm@ci.beloit.wi.us.

City of Beloit – Sanitary Sewer

The City of Beloit has sanitary sewer located along the east side of CTH G from 160' north Zick Drive to 440' north of Zick Drive and along the center line of Colony Court easterly from the east shoulder of CTH G. No relocations are anticipated other than the adjustment of manhole covers. Manhole cover adjustment will be done concurrently with the work under this project. This work will need to be coordinated with highway construction. The field contact is Michael Flesch, 100 State Street, Beloit, WI 53511, (608) 364-6690, email: fleschm@ci.beloit.wi.us.

City of Beloit – Traffic Signals

The City of Beloit has traffic signals at the intersection of Huebbe Parkway and CTH G. Modifications to these traffic signals are included in the work under Project 5966-10-70. The field contact is Michael Flesch, 100 State Street, Beloit, WI 53511, (608) 364-6690, email: fleschm@ci.beloit.wi.us.

Charter Communications – Cable Television & Communications
Charter Communications has overhead cable television lines located on Alliant Energy poles along the east side of CTH G from Huebbe Parkway to Philhower Road. They are also located overhead on Rock Energy Co-op poles from Sunny Lane to Station 220'G'+25 north of Sunny Lane, and have an aerial crossing of Cranston Road at USH 51. Charter has a buried cable crossing at Station 199'G'+42. They plan to relocate the overhead portions of their system along CTH G in conjunction with Alliant Energy and Rock Energy Co-op, and to relocate the conflicting portion of the overhead crossing at Cranston Road. The buried crossing at Station 199'G'+42 will also be relocated and lowered. The relocations are anticipated to start in March 2015 and be completed in 60 working days. This work will need to be coordinated with highway construction. The field contact is Tom Phillips, 2701 Daniels Street, Madison, WI 53718, (608) 373-7537, email: thomas.phillips@chartercom.com.

City of Janesville – Water Main
The City of Janesville has a 16" water main located along the south side of STH 11 that crosses CTH G south of STH 11 and crosses STH 11 east of CTH G. A 12" water main is located along the north shoulder of westbound STH 11 east of CTH G. A 16" water main is located along the west side of CTH G from STH 11 to Innovation Drive. The city plans to bore a 12" water main under CTH G at the Innovation Drive intersection and to extend a 12" water main east of CTH G along the south side of STH 11. This work will occur concurrently with the work under this project after the installation of the temporary traffic signal and is estimated to take 10 working days to complete. The city will also be adjusting water valve boxes concurrently with the work under this project. The field contact is Dennis Ryan, 18 North Jackson Street, PO Box 5005, Janesville, WI 53545-5005, (608) 755-3171, email: ryand@ci.janesville.wi.us.

City of Janesville – Sanitary Sewer
The City of Janesville has a 21" sanitary sewer that crosses STH 11 on the west side of CTH G and a 10" sanitary sewer along the west side of CTH G between STH 11 and Innovation Drive. The city plans to extend the 21" sanitary sewer to the east side of CTH G by a combination of open cut and bored construction. This work will occur concurrently with the work under Project 5966-10-71 after the installation of the temporary traffic signal and is estimated to take 10 working days to complete. The city also plans to extend a 10" sanitary sewer to the east side of CTH G at Innovation Drive by bored construction concurrently with the work under Project 5966-10-70. The city will also be adjusting manhole covers concurrently with the work under this project. The field contact is Dennis Ryan, 18 North Jackson Street, PO Box 5005, Janesville, WI 53545-5005, (608) 755-3171, email: ryand@ci.janesville.wi.us.

City of Janesville – Street Lights
The City of Janesville has street lighting located in the median of CTH G north of STH 11. Modifications to the street lights are included in the work under Project 5966-10-71. Contact the city to arrange for de-energizing and re-energizing the street lights. The field contact is Dennis Ryan, 18 North Jackson Street, PO Box 5005, Janesville, WI 53545-5005, (608) 755-3171, email: ryand@ci.janesville.wi.us.

Rock Energy Cooperative - Electric
Rock Energy Cooperative has overhead electric lines along the west side of CTH G from Philhower Road to 2600' north, along the east side of CTH G from south of Sunny Lane to 2000' north of Sunny Lane and along the west side of CTH G from 2000' north of Sunny Lane to 2700' south of STH 11. They plan to relocate their lines along the south side of Philhower Road west of CTH G with a diagonal crossing of CTH G to the north side of Philhower Road east of CTH G. New lines with also be constructed along the west side of CTH G from Philhower Road to 2600' north. The overhead electric lines will be relocated along the east side of CTH G, 2 feet inside the east right-of-way line from Sunny Lane to Station 248'G'+50 where they will cross to the west side of CTH G ending with a connection to the existing overhead lines at Station 248'G'+50. The overhead electric line will also be relocated along the west side of CTH G from Station 271'G'+19 to Station 300'G'+31, 2 feet inside the west right-of-way line, where it will cross to the east side of CTH G, 2 feet inside the east right-of-way line, and continue north to an end point at Station 308'G'+64. The relocations are anticipated to start in February 2015 and be completed in 50 working days. This work will need to be coordinated with highway construction. The field contact is Lynn Maier, 2815 Kennedy Road, P.O. Box 1758, Janesville, WI 53543, office: (608) 752-4550, mobile: (608) 289-4149, email: lynnm@rock.coop .

Windstream (Mcleod/PAETECH)-Fiber Optic
Windstream has an overhead communications line located on Alliant Energy poles along the east side of CTH G from Huebbe Parkway to the north side of Inman Parkway and from the south side of Walton Lane to Philhower Road, and a buried communications line located along the east side of CTH G from the north side of Inman Parkway to the south side of Walton Lane and from the south side of Sunny Lane to north of STH 11. They plan to relocate their existing lines to all overhead lines between Huebbe Parkway and Philhower Road in conjunction with Alliant Energy and relocate their buried cable along the east side of CTH G between Sunny Lane and STH 11, 5 feet inside the east right-of-way line and a minimum of 3 feet deep except under roads and driveways where they will a minimum of 4 feet deep. The relocations are anticipated to start April 1, 2015 and be completed in 45 working days. This work will need to be coordinated with highway construction. The field contact is Jim Kostuch, 13935 Bishops Drive, Brookfield, WI 53005, office: (262) 792-7938, email: james.kostuch@windstream.com .

Wisconsin Dept. of Transportation - Traffic Signals
The Department has traffic signals located at the intersection of STH 11 and CTH G and at the intersection of USH 51 and Cranston Road. Replacement of the CTH G/STH 11 traffic signal is included in the work under Project 5966-10-71, and modifications to the USH 51/Cranston Road traffic signal is included in the work under Project 5966-10-70. The field contact for traffic signals is Dena Dramm, (608) 246-5360, email: dena.dramm@dot.wi.gov.

9. Other Contracts.

The department plans to let Project 5989-05-21 for the construction CTH BT. CTH BT intersects with CTH G at Station 16'BT'+88 and will be constructed concurrently with this project. Storm sewer from this project will connect to downstream storm sewer constructed under Project 5989-05-21.

The City of Janesville has let a contract for the installation of sanitary sewer and water main on CTH G on the south side of the STH 11 intersection and for extension of sanitary sewer and water main across CTH G at the Innovation Drive intersection. This work will be performed concurrently with the work under this project, as soon as the temporary traffic signal is installed at the CTH G/STH 11 intersection. Allow 10 calendar days for the City of Janesville contractor to complete their work.

10. 3D Surface Model Data.

The department will provide 3D surface model data for projects 5966-00-72,-73 and 5996-10-70,-71. The data provided is for the bidder's knowledge only and is not part of the contract. The department assumes no responsibility for discrepancies between the data provided and the contract documents.

The department will provide 3D surface model data before the project let date within 5 business days of a contractor request submitted by email to Steve Marshall at **steve.marshall@dot.wi.gov**.

11. Project Communication Enhancement Effort.

Use this Project Communication Enhancement Effort (PCEE) tools on this contract. Coordinate with the department to modify the various published tools as necessary to meet the particular project needs and determine how to implement those tools under the contract. Ensure the full participation of the contractor and its principal subcontractors throughout the term of the contract.

Forms and associated guidance are published in the PCEE Manual available at the department's Highway Construction Contract Information (HCCI) web site at:

http://roadwaystandards.dot.wi.gov/standards/admin/pcee-user-manual.doc

12. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

Check for and comply with local ordinances governing the hours of operation of construction equipment. Do not operate motorized construction equipment from 8:00 PM until the following 6:00 AM, except at the CTH G/Huebbe Parkway intersection and on STH 11 as noted in the Traffic article, unless prior written approval is obtained from the engineer.

13. Notice to Contractor – Airport Operating Restrictions.

The FAA has height restrictions surrounding select airports. The department has obtained Temporary Determination of No Hazard to Air Navigation for all crane erection associated with bridge, noise barrier and retaining wall construction at the following locations.

Determinations provided for:

2015 Bridges

Project ID	Structure	Location	Latitude	Longitude	Heights	Issue Date	Expiration Date	Aeronautical Study No.
5966-10-70/71	Crane (Temporary for B-53-291)	CTH G Bridge	42-36-33 N NAD 83	89-00-42 W	100 feet AGL 888 feet AMSL	9/18/2014	3/18/2016	2014-AGL-10071-OE

Marking and lighting are not necessary for aviation safety. However, if marking and/or lighting are accomplished on a voluntary basis, the contractor is encouraged to install and maintain it in accordance to FAA Advisory Circular 70/7460-1 K Change 2.

Lower the temporary structure to the ground when not in use and during the hours between sunset and sunrise.

Notify the manager of Southern Wisconsin Regional Airport (JVL) at (608) 757-5768 at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site.

Any failure or malfunction that lasts more than 30 minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

Any height exceeding above ground level (AGL) or above mean sea level (AMSL) as indicated above will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

The determination expires unless extended, revised or terminated by the issuing office. Contractor must request an extension of the effective period of the determination to be postmarked or delivered by the contractor at least 30 days prior to the expiration date to:

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

For questions on extensions to the effective period of the determinations, contact the FAA office at (847) 294-7575 and reference the Aeronautical Study Number.

Any changes in coordinates and/or heights will void this determination. Any future construction or alteration, including increase to heights, requires separate notice to the FAA.

Determinations include temporary construction equipment such as cranes, derricks, and other equipment, which may be used during actual construction of a structure. Equipment shall not exceed the overall heights as indicated above. Contractor must request separate notice to the FAA if equipment has a height greater than the studied structure.

Contractor must copy the engineer on any correspondence with the FAA as it relates to time extensions and new/revised determinations.

A determination concerns the effect of temporary structures on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

14. Macro Invertebrate Habitat Protection.

There shall be no in stream disturbance of the branch the Rock River (Station 238'G'+21) as a result of construction activity under or for this contract, prior to April 15 or after September 15, in order to avoid adverse impacts upon the macro invertebrate habitat.

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

15. Notice to Contractor – Structure C-53-08 Drainage Channel.

The drainage channel at box culvert C-53-08 is normally dry but is subject to high water flows during large storm events to the elevations shown on the plans. Perform construction operations such that no loose or floatable material or equipment is stored in the drainage channel or in the box culvert. In the aftermath of a storm event take the following actions:

- Retrieve any contractor owned material or equipment that may have washed downstream.
- Check the formwork to verify that it is at the correct alignment and grade and that no braces or shoring have been affected.
- Remove any debris that has washed into the box culvert.
- Clean any silt that has accumulated on the reinforcing steel, inside the formwork, or on concrete surfaces adjacent to the formwork so that newly poured concrete will achieve the proper bond and will be poured to the dimensions shown on the plans.

16. Notice to Contractor – Contamination Beyond Construction Limits.

The department completed testing for soil and ground water contamination for locations within this project where excavation is required. Testing indicated that petroleum-contaminated soil is present at the following site:

- Station 7'G'+40 to 7'G'+58 from 125 feet left of centerline to 160 feet left of centerline.

Testing indicated that petroleum-contaminated groundwater is present at the following site:

2. Station 10'G'+65 to 13'G'+42 from 330 feet left of centerline to 720 feet left of centerline, 25 feet below ground.

The contaminated soils and groundwater at the above sites are expected to be beyond the excavation limits necessary to complete the work under this project. Control construction operations at these locations to ensure that they do not extend beyond the excavation limits indicated in the plans. If contaminated soils are encountered at these sites or elsewhere on the project during excavation, terminate excavation in the area and notify the engineer.

The Hazardous Materials Report is available by contacting: Jenny Grimes, (608) 884-1147, Jennifer.grimes@dot.wi.gov.
107-100 (20050901)

17. Erosion Control Structures.

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

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

18. Erosion Control.

Supplement standard spec 107.20 with the following:

Pursue operations in a timely and diligent manner continuing all construction operations methodically from the initial removal operation through the subsequent grading and

placement of base course. Install inlet silt protection devices the same day that the inlet is constructed.

Unless otherwise directed by the engineer at the end of each day, drive a tracked vehicle up and down all untracked or newly graded slopes to reduce the erosive potential of the slopes. The tracks shall be roughly perpendicular to the direction of stormwater runoff flow down the slopes. Upslope tracking is incidental to the cost of grading.

Place topsoil immediately after the completion of the pavement or sidewalk. Seed, fertilize, and mulch all topsoiled areas within ten calendar days after the placement of the pavement or sidewalk.

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

John Roelke, License Number All-119523, inspected Structure B-53-020 for asbestos on July 18, 2013. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jenny Grimes, (608) 884-1147, Jennifer.grimes@dot.wi.gov.

In accordance to NR447 and DHS159 , ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days prior to beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Jenny Grimes, (608) 884-1147, Jennifer.grimes@dot.wi.gov and DOT BTS-ESS attn: Hazardous Materials Specialist PO Box 7965, Madison, WI. 53707-7965. In addition, comply with all local or municipal asbestos requirements.
Use the following information to complete WisDNR form 4500-113:

- Site Name: Structure B-53-020, CTH G over Branch Rock River
- Site Address: 5.7 miles north of the junction with CTH S
- Ownership Information: Rock County Highway Division, 3715 Newville Road, Janesville, WI 53545
- Contact: Wayne Chase
- Phone: (608) 884-1224
- Age: 58 years old. This structure was constructed in 1957.
- Area: 2707 SF of deck

Insert the following paragraph in Section 6.g.:

- If asbestos not previously identified is found or previously non-friable asbestos becomes crumbled, pulverized, or reduced to a powder, stop work immediately, notify the engineer, and the engineer will notify the department's Bureau of Technical Services at z(608) 266-1476 for an emergency response in accordance to standard spec 107.24. Keep material wet until it is abated or until it is determined to be non-asbestos containing material.

107-125 (20120615)

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

John Roelke, License Number All-119523, inspected Structure C-53-008 for asbestos on July 18, 2013. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jenny Grimes, (608) 884-1147, Jennifer.grimes@dot.wi.gov.
107-127 (20120615)

21. Notice to Contractor, Asbestos Wrapped Gas Main.

Alliant Energy-Wisconsin Power and Light Company (WPL) is aware of the potential of asbestos pipe wrap around the gas pipes that are proposed to be abandoned. WPL will remove isolated sections of the abandoned pipes where the pipes are in direct conflict with proposed sewer facilities or highway improvements. Provide 14 calendar days notice to WPL of the proposed schedule for exposing the gas pipe and 3 business days follow- up notice to WPL for each location where the pipe is to be exposed. Excavate to expose the abandoned gas pipe in preparation for removal by WPL. WPL will remove the exposed gas pipe within one to three business days of the notification of the pipe exposure. If the excavation for exposure of the abandoned gas pipe will also expose an operational gas pipe, notify WPL so that a WPL designated observer can be on-site during the excavation. No excavation that will expose an operational gas pipe shall take place without a WPL designated observer on-site.

22. Coordination with Businesses.

The contractor shall arrange and conduct a meeting between the contractor, the department, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting prior to the start of work under this contract and hold two meetings per month thereafter.
108-060 (20030820)

Along with the business meeting, the contractor shall coordinate with County Materials Corporation (CMC) located in the SE quadrant of the Townline/CTH G intersection. CMC manufactures and delivers Over Size Over Weight (OSOW) prestressed girders. The staging near CMC's driveway is designed in such a way to allow CMC to deliver girders from the driveway on CTH G, north to Townline Road, and west on Townline Road. CMC shall be given access at all times not only to the driveways, but to the turning movement at Townline Road. The contractor shall coordinate with Chris Kirchner at (715) 551-2146 from CMC on a bi-weekly basis for delivery times and dates. The engineer shall be informed of the coordination weekly.

23. Clearing and Grubbing, Items 201.0105, 201.0120, 201.0205, and 201.0220.

Supplement standard spec 201.3 with the following:

The emerald ash borer (EAB) has resulted in a quarantine of ash trees (*Fraxinus, sp*) by the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) and the Wisconsin Department of Natural Resources (DNR).

Ash trees species attacked by emerald ash borer include the following:

- Green ash (F. pennsylvanica) is found throughout the state, but is most common in southern Wisconsin. It may form pure stands or grow in association with black ash, red maple, swamp white oak, and elm. It grows as an associate in upland hardwood stands, but is most common in and around stream banks, floodplains, and swamps.
- Black ash (F. nigra) is distributed over the entire state but is most frequently found in northern Wisconsin. It is most common in swamps, but is also found in other wet forest types.
- Blue ash (F. quadrangulata) is a threatened species that is currently found only at a few sites in Waukesha County. The species is at the edge of its range in Wisconsin, but is common in states farther south. The species is not of commercial importance. Blue ash twigs are 4-sided.
- White ash (F. americana) tends to occur primarily in upland forests, often with Acer saccharum.
- Includes all horticultural cultivars of these species.

(Note: blue ash twigs are 4-sided. All other Wisconsin ash trees have round stems.)

Mountain ash (Sorbus Americana and S. decora) is not a true ash and is not susceptible to EAB infestation.

The contractor shall be responsible for hiring a certified arborist to identify all ash trees that will be cleared and grubbed for the project. In addition, prior to scheduled clearing and grubbing activities, the arborist shall mark all ash trees with flagging tied around the trunk perimeter (florescent lime is suggested as it isn't identified with other project activities).

Follow and obey the following DATCP order:

ATCP 21.17 Emerald Ash Borer, Import Controls and Quarantine

- Importing or moving regulated items from infested areas; prohibition.

Except as provided in sub. (3), no person may do any of the following:

- Import a regulated item under sub. (2) into this state if that item originates from an emerald ash borer regulated area identified in 7CFR 301.53-3.
- Move any regulated item under sub. (2) out of an emerald ash borer regulated area that is identified in 7CFR 301.53-3 and located in this state.

Note: the United States Department of Agriculture-Animal and Plant Health Inspection Service (USDA-APHIS) periodically updates the list of regulated areas in 7CFR 301.53-3. Subsection (1) applies to new regulated areas as those areas are identified in the CFR.

- Regulated items.

The following are regulated items for purposes of sub. (2):

- The emerald ash borer, Agrilus planipennis Fairmaire in any living stage.
- Ash trees.
- Ash limbs, branches, and roots.
- Ash logs, slabs or untreated lumber with bark attached.
- Cut firewood of all non-coniferous species.
- Ash chips and ash bark fragments (both composted and uncomposted) larger than one inch in diameter.
- Any other item or substance that may be designated as a regulated item if a DATCP pest control official determines that it presents a risk of spreading emerald ash borer and notifies the person in possession of the item or substance that it is subject to the restrictions of the regulations.

Regulatory Considerations

The quarantine means that ash wood products may not be transported out of the quarantined area.

Clearing and grubbing includes all ash trees that are to be removed from within the project footprint. If ash trees are identified within clearing and grubbing limits of the project, the following measures are required for disposal:

Chipped ash trees

- May be left on site if used as landscape mulch within the project limits. If used as mulch on site, chips may not be applied at a depth greater than standard mulch applications as this will impede germination of seeded areas.
- May be buried on site within the right-of-way in accordance to standard spec 201.3 (14).
- May be buried on adjacent properties to projects within the quarantined zone with prior approval of the engineer in accordance to standard spec 201.3 (15).
- May be trucked to a licensed landfill within the quarantined zone with the engineer's approval in accordance to standard spec 201.3 (15).

24. Removing Old Structure Over Waterway With Minimal Debris Station 238'G'+21, Item 203.0600.S.001; Station 79'G'+51.65, Item 203.0600.S.002.

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

Add the following to standard spec 203:

203.3.6 Removals Over Waterways and Wetlands

203.3.6.2 Removing Old Structure Over Waterway with Minimal Debris

(1) Remove existing Structure B-53-20 and the designated portions of existing Structure C-53-08 over unnamed branches of the Rock River in large sections and conforming to the contractor's approved structure removal and clean-up plan. During superstructure removal, prevent all large pieces and minimize the number of small pieces from entering the waterway or wetland. Remove all reinforcing steel, all concrete, and all other debris that falls into the waterway or wetland. The contractor may leave limited amounts of small concrete pieces scattered over the waterway floor or wetland only if the engineer allows.

(2) Submit a structure removal and clean-up plan as part of the erosion control implementation plan required under standard spec 107.20. Do not start work under the structure removal and clean-up plan without the department's written approval of the plan. Include the following information in the structure removal and clean-up plan:

- Methods and schedule to remove the structure.
- Methods to control potentially harmful environmental impacts.
- Methods for superstructure removal that prevent all large pieces and minimize the number of small pieces from entering the waterway or wetlands.
- Methods to control dust and contain slurry.
- Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require.
- Methods for cleaning the waterway or wetlands.

(3) If stockpiling spoil material, place it on an upland site an adequate distance from the waterway, wetland, or any open water created by excavation. Install silt fence between the spoil pile and the waterway, wetland, or excavation site.

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

ITEM NUMBER	DESCRIPTION	UNIT
203.0600.S.001	Removing Old Structure Over Waterway With Minimal Debris Station 238'G'+21	LS
203.0600.S.002	Removing Old Structure Over Waterway With Minimal Debris Station 79'G'+51.65	LS

203-020 (20080902)

25. Removing Concrete Apron Endwalls, Item 204.9060.S.001.

A Description
Remove concrete apron endwalls in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction
Carefully remove concrete apron endwalls to avoid damage to the adjacent concrete pipe, so that the pipe can be extended.

D Measurement
The department will measure Removing Concrete Apron Endwalls by each individual unit, acceptably completed.

E Payment
Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.001	Removing Concrete Apron Endwalls	Each

204-025 (20041005)

26. QMP Base Aggregate.

A Description
A.1 General

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

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

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

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

(5) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:

http://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 furnishing 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)

27. Base Aggregate Dense 3/4 –Inch, Item 305.0110.

Revise standard spec 301.2.4.3 as follows:

Furnish aggregate classified as crushed stone for ¾-inch base when used in the top 3 inches of the unpaved portion of the shoulder or for unpaved driveways and field entrances.

28. Base Aggregate Dense 1 ¼-Inch, Item 305.0120.

Revise standard spec 305.2.2.1 as follows:

Use 1 ¼-Inch base aggregate that conforms to the following gradation requirements.

SIEVE	PERCENT PASSING BY WEIGHT
1 1/4 inch	95 - 100
1 inch	---
3/4 inch	70 - 90
3/8 inch	45 - 75
No. 4	30 - 60
No. 10	20 - 40
No. 40	7 - 25
No. 200	2 - 12 [1], [2]

[1] Limited to a maximum of 8.0 percent for base placed between old and new pavement.

[2] 3 - 10 percent passing when base is ³ 50% crushed gravel.

29. HMA Pavement Modification.

This special provision describes specialized material requirements for HMA Pavements. Conform to standard spec 460, as modified in this special provision.

Replace Table 460-2 under 460.2.7 with the following:

Mixture type	E - 0.3	E - 1	E - 3	E - 10	E - 30	E - 30x	SMA
ESALs x 10^6 (20 yr design life)	< 0.3	0.3 - < 1	1 - < 3	3 - < 10	10 - < 30	>= 30	
LA Wear (AASHTO T96)							
100 revolutions (max % loss)	13	13	13	13	13	13	13
500 revolutions (max % loss)	40	40	40	40	40	40	40
Soundness (AASHTO T104) (sodium sulfate, max % loss)	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Freeze/Thaw (AASHTO T103) (specified counties, max % loss)	12	12	12	12	12	12	12
Fractured Faces (ASTM 5821) (one face/2 face, % by count)	60 / __	65 / __	75 / 60	85 / 80	98 / 90	100/100	100/90
Flat and Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1 ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40	40	43	45	45	45	45
Sand Equivalency (AASHTO T176, min)	40	40	40	45	45	50	50

Mixture type	E - 0.3	E - 1	E - 3	E - 10	E - 30	E - 30x	SMA
Gyratory Compaction							
Gyrations for N_{ini}	6	7	7	8	8	9	8
Gyrations for N_{des}	40	60	75	100	100	125	65
Gyrations for N_{max}	60	75	115	160	160	205	160
Air Voids, $\%V_a$ ($\%G_{mm}$ N_{des})	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)
% G_{mm} N_{ini}	<= 91.5[1]	<= 90.5[1]	<= 89.0[1]	<= 89.0	<= 89.0	<= 89.0	___
% G_{mm} N_{max}	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	___
Dust to Binder Ratio[2] (% passing 0.075/P_{be})	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	70 - 80 [4] [5]	65 - 78[4]	65 - 75[4]	65 - 75[3] [4]	65 - 75[3] [4]	65 - 75[3] [4]	70 - 80
Tensile Strength Ratio (TSR) (ASTM 4867)							
no antistripping additive	0.70	0.70	0.70	0.70	0.70	0.70	0.70
with antistripping additive	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Draindown at Production Temperature (%)	___	___	___	___	___	___	0.30

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

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

[3] For 9.5mm nominal maximum size mixtures, the specified VFB range is 73 - 76%.

[4] For 37.5mm nominal maximum size mixes, the specified VFB lower limit is 67%.

[5] For 25.0mm nominal maximum size mixes, the specified VFB lower limit is 67%.

30. Rout and Seal, Item 415.6000.S.

A Description

This special provision describes routing, cleaning, drying, and sealing the longitudinal edge of pavement joints in new asphaltic pavement shoulders immediately adjacent to the edge of the concrete mainline pavement. The work shall conform to the plan details and as hereinafter provided.

B Materials

Furnish material that conforms to the requirements of the Specifications for Joint Sealants, Hot-Poured, for Concrete and Asphalt Pavements, ASTM Designation: D 6690, Type II,

modified to require that the bond strength test be run at -20 degrees F. (The unmodified ASTM D 6690, Type II allows this test to be run at either 0 degrees F or -20 degrees F.)

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

C Construction

C.1 Equipment

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

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

C.2 Methods

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

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

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

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

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

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

D Measurement

The department will measure Rout and Seal in length by the linear foot, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
415.6000.S	Rout and Seal	LF

Payment is full compensation for rout cutting; cleaning the joint; furnishing and installing all materials, including sealant.

415-100 (20140630)

31. 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.

32. 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)

33. 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 hot mix 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. Joint temperature is to be measured 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 reheating the abutting edge of the previously compacted layer in the adjacent lane while paving hot mix asphalt pavements.

34. Concrete Pavements.

This special provision describes specialized material requirements for aggregates used in Concrete Pavements. Conform to standard specs 415 and 501, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement and Structures.

Replace standard spec 501.2.5.4.1with the following:

501.2.5.4.1 General

(1) Use clean, hard, durable crushed gravel or crushed limestone free of an excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances, or adherent coatings considered injurious.

(2) Use virgin aggregates only.

Replace the first paragraph of standard spec 501.2.5.4.2 with the following:

(1) The amount of deleterious substances must not exceed the following percentages:

DELETERIOUS SUBSTANCE	PERCENT BY WEIGHT
Shale	1.0
Coal	1.0
Clay lumps	0.3
Soft fragments	5.0
Any combination of above	5.0
Thin or elongated pieces based on a 3:1 ratio	15.0
Materials passing the No. 200 sieve	1.5
Chert[1]	2.0

[1] Material classified lithologically as chert and having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of chert by dividing the weight of chert in the sample retained on a 3/8-inch sieve by the weight of the total sample.

Replace the first paragraph of standard spec 501.2.5.4.3 with the following:

(1) The department will ensure that Los Angeles wear testing conforms to AASHTO T 96, soundness testing conforms to AASHTO T 104 using 5 cycles in sodium sulfate solution on aggregate retained on the No. 4 sieve, and freeze-thaw soundness testing conforms to AASHTO T 103. The percent wear must not exceed 40, the weighted soundness loss must not exceed 9 percent, and the weighted freeze-thaw average loss must not exceed 12 percent.

35. Ice Hot Weather Concreting, Item 501.1000.S.

Conform to standard spec 501.3.8.2 except the department will pay for ice at the contract unit price under the Ice Hot Weather Concreting bid item. This special provision only applies to work done under the following contract bid items:

Concrete Masonry Bridges	Concrete Masonry Retaining Walls
Concrete Masonry Bridges HES	Concrete Masonry Retaining Walls HES
Concrete Masonry Culverts	Concrete Masonry Endwalls
Concrete Masonry Culverts HES	Concrete Masonry Overlay Decks
High Performance Concrete (HPC) Masonry Structures	

Replace standard spec 501.4 and standard spec 501.5 with the following:

501.4 Measurement

(1) The department will measure Ice Hot Weather Concreting by the pound acceptably completed, measured only if the conditions prescribed in standard spec 501.3.8.2 are met.

501.5 Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
501.1000.S	Ice Hot Weather Concreting	LB

(2) Payment for Ice Hot Weather Concreting is full compensation for ice used to cool concrete placed in hot weather as specified in standard spec 501.3.8.2.

(3) The department will not pay directly for the concrete specified under this section. Concrete is incidental to the various bid items using it. Payment under those bid items includes providing all materials, including aggregates and associated aggregate source testing, cement, fly ash, slag, and admixtures; for preparing, transporting, storing, protecting and curing concrete; and for contractor requirements related to testing specified in standard spec 501.3.10.

(4) If required to remove and replace any concrete damaged by lack of proper protection. Perform this work at no expense to the department.

501-010 (20150121)

36. Pigmented Protective Surface Treatment, Item 502.3210.S.

A Description

This special provision describes providing a pigmented protective surface treatment to the inside faces and tops of the concrete parapets.

B Materials
Furnish a commercial protective surface treatment selected from the department's approved products list and of the color the plans show.

C Construction
Apply protective surface treatment to the inside faces and top of concrete parapets after completion of the required curing period. Apply as soon as practicable after completing the structure, before opening to traffic, and before suspending work for the winter.

Ensure that the concrete is clean and dry and that application equipment is clean and functioning properly. Air blast immediately before applying the surface treatment to remove all dust or loose particles. Follow the surface treatment manufacturer's recommendations, but ensure that the concrete is surface-dry for a minimum of one day before application.

D Measurement
The department will measure Pigmented Protective 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
502.3210.S	Pigmented Protective Surface Treatment	SY

Payment is full compensation for providing the treatment; including surface preparation and cleaning.
502-050 (20080902)

37. 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)

38. Pipe Grates 24-Inch, Item 611.9800.S.001; 19 x 30-Inch, Item 611.9800.S.002.

A Description
This special provision describes furnishing and installing pipe grates on the ends of pipes as shown in the plans, and as hereinafter provided.

B Materials
Furnish steel conforming to the requirements of standard spec 506.2.2.1. Furnish steel pipe conforming to the requirements of standard spec 506.2.3.6.

Furnish pipe grates galvanized according to ASTM A123.

Furnish angles and brackets galvanized according to ASTM A123.

Furnish required hardware galvanized according to ASTM A153.

C Construction
Repair pipes, rods, angles and brackets on which the galvanized coating has been damaged in accordance to the requirements of AASHTO M36M.

D Measurement
The department will measure Pipe Grates in units of work, where one unit is one grate completed and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
611.9800.S.001	Pipe Grates 24 -Inch	Each
611.9800.S.002	Pipe Grates 19 x 30-Inch	Each

Payment is full compensation for furnishing and installing all materials; and for drilling and connecting grates to pipes.
611-010 (20030820)

39. Fence Safety, Item 616.0700.S.

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

B Materials
Furnish notched conventional metal "T" or "U" shaped fence posts.

Furnish fence fabric meeting the following requirements:

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1 inch min to 3 inch max
Resin/Construction:	High density polyethylene mesh
Service Temperature:	-60° F to 200° (ASTM D648)
Tensile Yield:	Avg. 2000 lb per 4 ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4 ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

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

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

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

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

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

Payment is full compensation for furnishing and installing fence and posts; maintaining the fence and posts in satisfactory condition; and for removing and disposing of fence and posts at project completion.
616-030 (20070510)

40. Traffic Control Signs, Item 643.0900.

This special provision describes mounting height requirements and sign support requirements. Conform to standard spec 643, as modified in this special provision.

Supplement standard spec 643.2.9.1(5) as follows:

Provide associated advanced signing, including portable traffic control signing, in accordance to the MUTCD. Mount all portable traffic control sign at a minimum height of 5 feet, measured from the bottom of the sign, above the edge of pavement. Use signs and supports conforming to NCHRP 350 test level 3 or MASH crashworthiness criteria.

41. Locating No-Passing Zones, Item 648.0100.

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

42. General Requirements for Electrical Work.

Add the following paragraph to standard spec 651.2, Materials:

(7) The approved products list is located at:
http://www.dot.wisconsin.gov/business/engrserv/docs/ap3/electrical.pdf

Add the following to standard spec 651.3.3 (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 Dena Dramm of WisDOT SW Region at (608) 246-5360 to coordinate the inspection of the signal at STH 11. The department's Region Electrical personnel will perform the inspection of the signal at CTH G and STH 11. Notify Rock County's Electrical Field Department to coordinate the inspection of the signal at CTH G and CTH BT.

43. Traffic Signals, General.

All traffic signal work shall be in accordance to the standard specifications and these plans and specifications.

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

Notify Dena Dramm of WisDOT SW Region at (608) 246-5360 at least three weeks prior to the beginning of the traffic signal work for traffic signals at the intersection of STH 11 and CTH G and at the intersection of USH 51 and Cranston Road. Notify Ben Coopman,

Director of Public Works/Highway Commissioner with Rock County at (608) 757-5450, at least three weeks prior to the beginning of the traffic signal work for traffic signals at the intersection of CTH G and CTH BT. Notify Jason Dupuis of the City of Beloit at (608) 364-6735 at least three weeks prior to the beginning of the traffic signal work at the intersection of CTH G and Huebbe Parkway.

The following items for the signal at CTH G and CTH BT shall be procured from the vendor with a factory applied black finish:

- Backplates signal face 3 section 12-inch
- Backplates signal face 4 section 12-inch
- Signal Mounting Hardware
- Pedestal base
- Traffic Signal Standards Aluminum 13-FT
- Traffic Signal Standards Aluminum 15-FT
- Traffic Signal Standards Aluminum 10-FT
- Luminaire Arms Steel 15-FT
- Monotube Arms 50-FT
- Poles Type 13

Include the cost of the factory applied black finish in the unit price for each item listed above.

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

Supplement standard spec 106 as follows:

Standard specification 106.2 – Supply Source and Quality
Supplement standard spec106.2 as follows:

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

Department-Furnished Items
(1) Detector, Serial Data Interface Microwave Radar
(1) Solar Power System for Microwave Detector (Cabinet and (2) Panels)
(1) Camera, Outdoor, Barrel, Internet Protocol
(1) Cabinet, Pole-Mounted, CCTV
(1) Encoder, Internet Video
(2) Cellular Modem, 4G LTE with 6-inch Antenna
(1) Camera Bracket, Wood Pole

Contact Dean Beekman, STOC, at (414) 227-2154, to obtain a copy of the manufacturer list and contact names for department-furnished equipment.

Pick-up small department-furnished equipment, such as communication 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 or Region ITS contact at (608) 246-5367.

Large department-furnished equipment will be delivered by the supplier to a contractor-controlled site within Rock or Dane County. Delivery will not necessarily be in a "just in time" manner. Store the equipment until field installation. Provide location details and a contact for delivery coordination upon receiving the contract's Notice to Proceed.

Transportation of the equipment between the contractor-controlled site 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.
- 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.

45. Intelligent Transportation Systems – General Requirements.

Supplement standard spec 670 as follows.

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 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 shall 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 shall be clearly labeled with the value, part number, tolerance, or other information sufficient to enable a technician to order an exact replacement part.

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

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

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

B.4 Environmental Conditions

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

- **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 between 5 percent and 90 percent, non-condensing, and with a temperature gradient of 9 degrees F per hour.

B.5 Cables and Wiring

All cables and wiring between devices installed in a single cabinet, in separate cabinets sharing a single concrete base, and in a pole-mounted cabinet and equipment sharing the same pole 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 Ethernet cables, serial cables between individual devices and terminal servers, and power cables between individual devices and power sources within the cabinets.

B.6 Surge Protection

Low-voltage signal pairs, 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 shall 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 shall 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.

C.4 System Operations
If the contractor's operations unexpectedly interrupt 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.

C.6 Notification
Notify Kyle Hemp at (608) 246-5367 a minimum of two weeks prior to staking the ITS items.

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.

46. 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 Nonmetallic Conduit 3-Inch, 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)

47. Electrical Service Meter Breaker Pedestal CTH G and Townline Road, Item 656.0200.002; CTH G and CTH BT, Item 656.0200.003; Sta. 46+10G, 40' LT, Item 656.0200.004.

Append standard spec 656.2.3 with the following:

The contractor will be responsible for the electric service installation request. The application shall be in the name of Rock County.

Electric utility company service installation and energy cost will be billed to and paid for by the maintaining authority (Rock County).

Install the cabinet base and meter breaker pedestal first, so the electric utility company can install the service lateral. 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 electric utility company.

Append standard spec 656.5(3) with the following:

Payment for grading the service trench, replacing topsoil, fertilizer, seed, and mulch will be incidental to this work unless the bid items are in the contract and then they will be paid for at the contract price.

48. Install Poles Type 12, Item 657.1355; Install Monotube Arms 40-Ft, Item 657.1540; Install Monotube Arms 45-Ft, Item 657.1545.

Append standard spec 657.2.1 with the following:

(2) Department furnished materials will be delivered to the site. The contractor shall assist with unloading the equipment and store the equipment at the site until it is installed.

49. Temporary Traffic Signals for Intersection STH 11 and CTH G, 661.0200.001.

Append standard spec 661.2.1 with the following:

(5) Furnish and install all temporary traffic signal equipment as shown on the plans. The signal controller shall be capable of operating with a non-intrusive vehicle detection system. All wood poles shall be plumb and level. All timing changes requested by the engineer shall be coordinated with Dena Dramm of WisDOT SW Region at (608) 246-5360.

Replace standard spec 661.3.1(2) with the following:

(2) Request a signal inspection of the complete temporary traffic signal installation. Make this request to the engineer at least five working days before the requested inspection. Notify Dena Dramm of WisDOT SW Region at (608) 246-5360 to coordinate the inspection. The department's region electrical personnel will perform the inspection.

Append standard spec 661.3.1.4 with the following:

(1) Arrange for monthly inspections with the engineer to check the height of the span wire above the roadways. Ensure the bottom of the traffic signal heads remain within the minimum and maximum heights allowed above the roadway. Make all height adjustments within 24-hours 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 monthly inspection, the heights above the roadway, the roadway clearance after adjustments have been made and acceptance by the engineer. Provide to the engineer all documentation related to the monthly span wire height checks and all records related to maintenance performed on the temporary traffic signal installations to the engineer.

Revise standard spec 661.5 with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
661.0200.001	Temporary Traffic Signals for Intersections STH 11 and CTH G	LS

(2) Payment for the Temporary Traffic Signals for Intersections bid item is full compensation for providing, operating, maintaining, and repairing the complete temporary installation; and for removal. Payment also includes the following:

1. Furnishing and installing the replacement equipment.
2. The cost of delivery and pick-up of the cabinet assemblies.
3. Removal of service and site restoration.
4. Inspection and documentation

(3) Payment for Generators is full compensation for providing, maintaining, and operating generators, including fuel and oil; for providing and locating a backup generator at the site; and for providing flaggers if required.

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

A Description

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

B Materials

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

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

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

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

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

C Construction

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

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

the cutting or drilling process. Seal all openings to prevent water from entering the cabinet. Mount the surge protector to the service panel.

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

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

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

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

Payment is full compensation for installing the pole mounted cabinet; for making all connections and conduit/wire entrances; and for furnishing all testing.
673-010 (20100630)

51. Install Video Encoder, Item 677.0300.S.

A Description
This special provision describes installing a department-furnished video encoder in a pole mounted cabinet or field cabinet as shown on the plans and as hereinafter provided.

B Materials
Provide Category 5 or better Ethernet cable to connect the Ethernet video encoder to the Ethernet switch. The department will furnish the video encoder or it will be an existing and salvaged encoder.

C Construction
Make the necessary electrical and communication network connections to the video encoder. Mount the video encoder in the pole mounted cabinet or field cabinet. Program the video encoder according to the manufacturer's instructions.

D Measurement
The department will measure Install Video Encoder by each individual assembly, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
677.0300.S	Install Video Encoder	Each

Payment is full compensation for installing the video encoder in a pole mounted cabinet or field cabinet; for making all connections; for furnishing all programming.
677-030 (20100630)

52. Baseline CPM Progress Schedule, Item SPV.0060.052; CPM Progress Schedule Updates and Accepted Revisions, Item SPV.0060.053.

Replace standard spec 108.4 with the following:

108.4 Critical Path Method Progress Schedule

108.4.1 Software

Use the latest version of Oracle (Primavera) Project Manager (P6) version 7.0 or newer to prepare the Initial Work Plan Schedule, Baseline CPM Progress Schedule, and all Monthly CPM Updates.

108.4.2 Personnel

Designate a Project Scheduler who will be responsible for scheduling the Work and submit for department approval a professional resume describing a minimum of three years of developing and managing specific CPM scheduling on major (interstate) highway reconstruction projects or projects of similar size and complexity. This includes recent experience using Oracle P6 software.

108.4.3 Definitions

The department defines terms used in standard spec 108.4 as follows:

Activity

A task, event or other project element on the schedule, during the course of the project that contributes to completing the project. Activities have a description, scheduled (or actual) start and finish dates, duration and one or more logic ties.

Critical Path

The longest continuous path of activities through the project that has the least amount of total float. In general, a delay on the critical path will extend the scheduled completion date.

Critical Path Method (CPM)

A network based planning technique using activity durations and the relationships between activities to mathematically calculate a schedule for the entire project.

Construction Activity

Construction activities are discrete work activities performed by the contractor, subcontractors, utilities, or third parties within the project limits.

CPM Progress Schedule
A Critical Path Method (CPM) Progress Schedule is a network of logically related activities. The CPM schedule calculates when activities can be performed and establishes the critical or longest continuous path or paths of activities through the project.

Data Date
The earliest work period after the date through which a schedule is current. Everything occurring earlier than the data date is "as-built" and everything on or after the data date is "as-planned."

Department's Preliminary Construction Schedule
The department's schedule for the contract work, developed during design, and provided to the contractor for informational purposes only.

Float
Float, as used herein, is the total float of an activity; i.e., it is the amount of time between the date when an activity can start (the early start), and the date when an activity must start (the late start). In cases where the total float of an activity has a different value when calculated based on the finish dates, the lower (more critical) value will govern.

Forecast Completion Date
The completion date(s) predicted by the latest accepted CPM Update, which may be earlier or later than the contract completion date(s), depending on progress.

Fragnet
A group of logically-related activities, typically inserted into an existing CPM schedule to model a portion of the project, such as the work associated with a change order or delay impact.

Initial Work Plan Schedule
The Initial Work Plan (IWP) Schedule is a time-scaled CPM schedule showing detailed activities for the first 90 calendar days of work and summary level activities for the remainder of the project.

Intermediate Milestone Date
A contractually required date for the completion of a portion of the work, so that a subsequent portion of the work or stage of traffic phasing may proceed.

Master Program Schedule
The department's schedule for the overall I-39/90 Corridor Management Program, including intermediate milestone dates contract completion dates and codes.

Work Breakdown Structure (WBS)
A framework for organizing the activities that makes up a project by breaking the project into successively greater detail by level. A WBS organizes the project work. It does not address the sequencing and scheduling of project activities.

108.4.4 Department's Preliminary Construction Schedule

The department's Preliminary Construction Schedule was developed during the design phase of the contract. Its purpose was to illustrate work areas per Stage/Phase of construction. Durations and resource availability are department estimates only. Contractor is solely responsible for its use of means and methods and as such is fully responsible for determining durations based on own estimate of production and available resources. The suggested use of the department's Preliminary Construction Schedule is ease of identification of work availability during each Stage/Phase and the logical relationship between the Stages/Phases. The Preliminary Construction Schedule reflects one possible approach to completing the work, consistent with the traffic phasing requirements and the interim/final completion date(s) contained in the contract. The logic contained in the Preliminary Construction Schedule is not intended to alter or supplement contract requirements for the phasing of the work, but to reflect those requirements. Any reliance on the department's Preliminary Construction Schedule is at the sole risk of the contractor.

108.4.5 Contractor's Scheduling Responsibilities

The CPM Schedule shall be a tool capable of forward planning and monitoring the project. The schedule will further be used as a communication tool between the contractor and the department. It will be used to illustrate the plan, develop what-if scenarios, and analyze impacts. The accuracy and completeness of the CPM Schedule will benefit both the contractor and the department. The CPM schedule is the contractor's committed plan to complete all work within the completion deadlines.

The contractor shall submit to the department initial and monthly update schedules, each consistent in all respects with the time and order of work requirements of the contract. The project work shall be executed in the sequence indicated on the current accepted schedule. Schedules shall show the order in which the contractor proposes to carry out the work with logical links between activities, and calculations made using the critical path method to determine the controlling operation or operations. The contractor is responsible for assuring that each schedule shows a coordinated plan for complete performance of the work. Schedule the Work in the manner required to achieve the completion date and intermediate milestone dates specified in the Prosecution and Progress Special Provision.

Contactor project management personnel shall actively participate in the schedule development, the monthly updating of progress, and all schedule revisions throughout the entire duration of the contract. Subcontractors and suppliers working on the project shall also contribute in developing and maintaining an accurate schedule.

108.4.6 Submittals

108.4.6.1 Initial Work Plan Schedule

Submit an Initial Work Plan (IWP) Schedule consisting of the following:

- Provide a detailed plan of activities to be performed during the first 90 calendar days of the contract. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
- Provide activities as necessary to depict administrative work, including submittals, reviews, procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days).
- Provide activities as necessary to depict third-party work related to the contract.
- Provide summary activities for the balance of the project. Summary activities may have durations greater than 28 calendar days (20 business days).
- Submit three copies of the IWP Schedule, including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM's.
- Following department receipt of the IWP Schedule, allow ten business days for department review and return of comments. Within five business days of receiving the IWP Schedule, the department will schedule a workshop for the contractor to present the IWP Schedule and to answer questions raised during the department's review. Provide formal responses to the comments and resubmit the IWP Schedule as necessary. A notice to proceed will not be issued until the engineer accepts the IWP Schedule. The department will use the IWP Schedule to monitor the progress of the work until the Baseline CPM Progress Schedule is accepted.
- Submit an updated version of the IWP Schedule on a bi-monthly basis (every other week) until the engineer accepts the Baseline CPM Progress Schedule. With each update, include actual start dates, completion percentages, and remaining durations for activities started but not completed. Include actual finish dates for completed activities.

108.4.6.2 Baseline CPM Progress Schedule

Within ten business days of receiving an approved IWP Schedule, as required in the contract, submit a Baseline CPM Progress Schedule and written narrative consisting of the following:

- Develop the Baseline CPM schedule. The Baseline CPM is the contractor's committed plan to complete the work within the time frames required to achieve the contract completion date and intermediate milestone dates. The department will use the schedule to monitor the progress of the work. Include the following:

- Provide a detailed plan of activities to be performed during the entire contract duration, including all administrative and construction activities required to complete the work as described in the contract documents. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
- Provide activities as necessary to depict administrative work, including submittals, reviews, procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days).
- Provide activities as necessary to depict third-party work related to the contract. Third-party work activities may include but is not limited to Railroads, Utilities, Real Estate and local government agencies.
- Make allowance for specified work restrictions, non-working days, time constraints, calendars, and potential or approved weather delays; reflect involvement and reviews by the department; and coordination efforts with adjacent contractors, utility owners, and other third parties.
- With the exception of the Project Start Milestone and Project Completion Milestone, all activities must have predecessors and successors. The start of an activity shall have a Start-to-Start or Finish-to-Start relationship with preceding activities. The completion of an activity shall have a Finish-to-Start or Finish-to-Finish relationship with succeeding activities. Do not use Start-to-Finish relationships. Do not use Finish-to-Start relationships with a lag unless the engineer accepts requested exceptions. Include and discuss request for exceptions in the schedule narrative provided with each schedule submittal.

- Schedule activities shall include the following:
- A clear and legible description. The use of abbreviations shall be limited. Descriptions shall include an action verb describing the work performed, a basic description of the materials used, and, where applicable, a general location of the work.
- Codes for Contract ID / WisDOT Project ID, Responsibility, Stage, and Area. The department may provide additional codes for use within department reporting.
- Activities shall carry a single responsibility assignment.
- Schedule all intermediate milestones in the proper sequence and input as either a “Start on or After” or “Finish on or Before” date. Do not use other constraint types, within the software, without prior approval by the engineer. Provide predecessors and successors for each intermediate milestone as necessary to model each stage of the work. Unless the engineer accepts a requested exception, the schedule shall encompass all the time in the contract period between the starting date and the specified completion date.
- Using the bid quantities and unit prices, develop an anticipated cash-flow curve for the project, based on the Baseline CPM.

- Provide three hard copies (11” x 17”) of the CPM schedule depicting the CPM network. Organize the logic diagram by grouping related activities, based on the activity codes in the CPM.

- Provide a written narrative with the Baseline CPM explaining the planned sequence of work, as-planned critical path, critical activities for achieving intermediate milestone dates, traffic phasing, and planned labor and equipment resources. Use the narrative to further explain:
- The basis for activity durations in terms of production rates for each major type of work (number of shifts per day and number of hours per shift), and equipment usage and limitations.
- Use of constraints.
- Use of calendars.
- Estimated number of adverse weather days on a monthly-basis.
- Scheduling of permit and environmental constraints, and coordination of the schedule with other contractors, utilities, and public entities.

- Submit three copies of the Baseline CPM schedule including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM’s.

Within ten business days of receiving the Baseline CPM schedule, the department will schedule a workshop, review the submittal, and return review comments.

Within five business days after the Baseline CPM scheduling workshop, the department will either accept the contractor’s Baseline CPM schedule or provide additional comments. Within five business days, address the department’s comments and resubmit a revised Baseline CPM, including formal responses to the department’s review comments. If the engineer requests justifications for activity durations provide information that may include estimated labor, equipment, unit quantities, and production rates used to determine the activity duration.

The engineer will accept the Baseline CPM based solely on whether the schedule is complete as specified in this section and meets the requirements of the contract. The engineer’s acceptance of the schedule does not modify the contract and does not relieve the contractor from meeting the contract requirements.

The department will not consider requests for contract time extensions as specified in standard spec 108.10 or additional compensation for delay specified in standard spec 109.4.7 until the department accepts the Baseline CPM schedule.

108.4.6.3 Monthly CPM Schedule Updates

Submit CPM Schedule updates on a monthly basis after acceptance of the Baseline CPM Schedule. With each CPM Schedule update, include the following:

- Actual start dates, completion percentages, and remaining durations for activities started but not completed, and actual finish dates for completed activities, through the final acceptance of the project.

- Additional activities as necessary to depict additions to the contract by changes and logic revisions as necessary to reflect changes in the contractor's plan for prosecuting the work.
- Include a narrative report that includes a brief description of monthly progress, changes to the critical path from the previous update, sources of potential delay, work planned for the next 30 calendar days, and all changes to the CPM Schedule. Changes to the CPM Schedule include the addition or deletion of activities, changes to activity descriptions, original durations, relationships, overlap (lag/lead), constraints, calendars, or previously recorded actual dates. Justify changes to the CPM Schedule in the narrative by describing associated changes in the planned methods or manner of performing the work or changes in the work itself.
- Submit three copies of each CPM Schedule update, including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM's.
- Within ten business days of receiving each CPM Schedule update, the engineer will provide formal review comments and schedule a meeting, if necessary, to address comments raised in the department's review. Address the department's comments and resubmit a revised CPM Schedule update within five business days after the department's request.

108.4.6.4 Three-Week Look-Ahead Schedules

Submit Three-Week Look-Ahead Schedules on a weekly basis after NTP. The schedule shall be prepared by computer. Provide three hard copies (11" x 17") to the engineer. With each Three-Week Look-Ahead include:

- Activities underway and as-built dates for the past week.
- Actual as-built dates for completed activities through final acceptance of the project.
- Planned work for the upcoming three-week period.
- The activities of the Three-Week Look-Ahead schedule shall include the activities underway and critical RFIs and submittals, based on the CPM schedule. The Three-Week Look-Ahead may also include details on other activities not individually represented in the CPM schedule.
- On a weekly basis, the department and the contractor shall agree on the as-built dates depicted in the Three-Week Look-Ahead schedule or document any disagreements. Use the as-built dates from the Three-Week Look- Ahead schedules for the month when updating the CPM schedule.

108.4.6.5 Weekly Production Data

Provide estimated and actual weekly production curves for items of work on a weekly basis for applicable items of work as requested by the department including but not limited to the following:

- Provide data on the following items by the units specified:

- Underground Facilities – LF per week

- Retaining Walls – SF per week
- MSE Walls
- Other Wall Types

- Bridge Construction
- Foundation Pile – EACH per week
- Foundation/Substructure Concrete – CY per week
- Structural Steel Girders – EACH per week
- Prestressed Concrete Girders – EACH per week
- Deck Formwork – SF per week

- Roadway Excavation – CY per week

- Roadway Embankment – CY per week

- Roadway Structural Section
- Grading/Subgrade Preparation – SY per week
- Base Material Placement – TON per week
- Base Material Subgrade Preparation – SY per week
- Asphaltic Base – TON per week
- Asphaltic and HMA Pavements – TON per week
- Concrete Pavement – SY per week
- Concrete Pavement – CY per week

- Finishing Items – SY per week

Note: Base material shall include all breaker run, base aggregate, subbase items or other base items included in the contract. Provide production information for each individual base material item.

- For each item, indicate the actual daily production for the past week and the anticipated weekly production for the next week. Also include cumulative production curves showing the production information for each item to date.

- Submit the data in an electronic spreadsheet format at the same time the Three-Week Look-Ahead is submitted. On a weekly basis, the department and the contractor shall agree on the production data or document any disagreements.

108.4.7 Progress Review Meetings

After completing the weekly submittal of the Three-Week Look-Ahead Schedules and production data, attend a weekly progress review meeting to review the submittals with the department. At the meeting, address comments as necessary, and document agreement or disagreement with the department.

After submitting the monthly update and receiving the engineer's comments, attend a job-site meeting, as scheduled by the engineer, to review the progress of the schedule. At that meeting, address comments as necessary, and document agreement or disagreement with the department. The monthly meeting will be coordinated to take place on the same day and immediately before or after a weekly meeting, whenever possible.

108.4.8 CPM Progress Schedule Revisions

A CPM Progress Schedule Revision may be submitted, prior to the next CPM Monthly Update, if necessary due to changes in the Work or project conditions as authorized by the engineer. Prepare the CPM Revision in the same format as required for CPM Monthly Updates, including justification for changes to the schedule. The process for comment and acceptance of a CPM Revision will be the same as for CPM Monthly Updates. If the CPM Revision is accepted, prepare the next monthly update based on the revised CPM. If the CPM Revision is rejected, prepare the next monthly update based on the previous month's update.

The engineer will monitor the progress of the work and may request revisions to the CPM schedule. Revise the schedule as requested by the engineer, and submit a CPM Progress Schedule Revision within ten business days of the request. The process for comment and acceptance of a CPM Revision will be the same as for CPM Monthly Updates. The engineer may request that the contractor revise the CPM schedule for one or more of the following reasons:

- The forecast completion date is scheduled to occur more than 14 calendar days after the contract completion date.

- An intermediate milestone is scheduled to occur more than 14 calendar days after the date required by the contract.

- The engineer determines that the progress of the work differs significantly from the current schedule.

- A contract change order requires the addition, deletion, or revision of activities that causes a change in the contractor's work sequence or the method and manner of performing the work.

108.4.9 Documentation Required for Time Extension Requests

To request a time extension to an intermediate milestone date or the contract completion date associated with changes to the work, provide a narrative detailing the work added or deleted and the other activities affected, based on the latest accepted CPM Monthly Update. For added work, submit a proposed fragnet of activities to be added or revised in the CPM schedule, indicating how the fragnet is to be tied to the CPM schedule.

To request a time extension to an intermediate milestone date or the contract completion date associated with delays to the work, provide a narrative detailing the affected activities and the cause of the delay, based on the latest accepted CPM Monthly Update. Requests for time extensions due to delays shall meet the following criteria:

- For requests to extend the contract completion date, include a detailed description of how the delay, or additional work, affected the project's critical path, based on the latest accepted CPM Monthly Update.

- For requests to extend an intermediate milestone date, include a description of how the delay, or additional work, affected the controlling (longest) path to the milestone, based on the latest accepted CPM Monthly Update.

- The department and the contractor agree that the float is not for the exclusive use or financial benefit of either party. Either party has the full use of the float on a first come basis until it is depleted.

108.4.10 Measurement for CPM Progress Schedule

The department will measure Baseline CPM Progress Schedule for each required submittal, acceptably completed.

The department will measure CPM Progress Schedule Updates and Accepted Revisions for each required submittal, acceptably completed.

108.4.11 Payment for CPM Progress Schedule

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.052	Baseline CPM Progress Schedule	Each
SPV.0060.053	CPM Progress Schedule Updates and Accepted Revisions	Each

Payment is full compensation for furnishing all work required under these bid items. The department will pay the contract unit price for the Baseline CPM Progress Schedule after the department accepts the schedule. Thereafter, the department will pay the contract unit price for each monthly CPM Progress Schedule update acceptably completed. The department will pay the contract unit price for CPM Revisions, if the department accepts the revision. The department will not pay for proposed revisions that are not accepted.

Failure to provide satisfactory schedule submittals within the times specified will result in liquidated damages being assessed and may result in the department managing to the contractor's latest accepted schedule until such time as the contractor submits an updated or revised schedule.

If the contractor does not provide satisfactory progress schedule submittals, updates and revisions, within the time specified by these specifications, the department will assess liquidated damages. The department will deduct the amount of $500 per calendar day due to the contractor for every calendar day that the submission of the Initial Work Plan Schedule, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule is delinquent.

If the Initial Work Plan Schedule, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule update submittals are not received by the department within 10 business days after the submittal time specified, the department will only make progress payments for the value of materials, as specified in standard spec 109.6.3.2.1, until the schedule is submitted.

53. Inlet Cover Flat Temporary, Item SPV.0060.125.

A Description
This special provision describes furnishing, installing, adjusting and removing temporary inlet covers on existing storm sewer structures at locations shown in the plans.

B Materials
Furnish inlet covers in accordance to the pertinent requirements of standard spec 611. The grates shall be open for drainage, traversable by vehicle and bicycle traffic, and rated for traffic loading. Chain or bolt the grate to the frame of the inlet cover.

C Construction
Remove the existing inlet or manhole cover and place the temporary inlet cover on the existing structure with the necessary adjustments in accordance to standard spec 611. Adjust and set the grade of the inlet cover to meet the final surface of the temporary pavement for traffic lanes.

Remove the temporary inlet cover once no longer needed in the temporary traffic lanes.

D Measurement
The department will measure Inlet Covers, Flat, Temporary 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.0060.125	Inlet Cover Flat Temporary	Each

Payment is full compensation for furnishing temporary inlet covers, including frames, grates or lids, and all other required materials and for installing, adjusting, and removing each cover. Upon removal, the temporary inlet cover becomes the property of the contractor.

54. Apron Endwalls Twin Culvert Pipe Steel 24-Inch, Item SPV.0060.126; 36-Inch, Item SPV.0060.127; 42-Inch, Item SPV.0060.128; 48-Inch, Item SPV.0060.129; 72-Inch, Item SPV.0060.130.

A Description
This special provision describes furnishing and installing steel apron endwalls for twin culvert pipes in accordance to the standard specifications, as shown in the plans and as hereinafter provided.

B Materials
Furnish apron endwalls twin culvert pipe steel that conform to the pertinent requirements of standard spec 521.

C Construction
Conform to the requirements of standard spec 521.

D Measurement
The department will measure Apron Endwalls Twin Culvert Pipe Steel (Size) 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.0060.126	Apron Endwalls Twin Culvert Pipe Steel 24-Inch	Each
SPV.0060.127	Apron Endwalls Twin Culvert Pipe Steel 36-Inch	Each
SPV.0060.128	Apron Endwalls Twin Culvert Pipe Steel 42-Inch	Each
SPV.0060.129	Apron Endwalls Twin Culvert Pipe Steel 48-Inch	Each
SPV.0060.130	Apron Endwalls Twin Culvert Pipe Steel 72-Inch	Each

Payment is full compensation in accordance to standard spec 521.5.

55. Temporary Drainage Riser, Item SPV.0060.131.

A Description
This special provision describes furnishing and installing temporary drainage risers in accordance to the standard specifications, as shown in the plans and as hereinafter provided.

B Materials
Furnish Schedule 40 DWV PVC pipe and pipe grates. Furnish backfill material that is according to the pertinent requirements of standard spec 607.

C Construction
Conform to the requirements of standard spec 607.

D Measurement
The department will measure Temporary Drainage Riser 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.0060.131	Temporary Drainage Riser	Each

Payment is full compensation for furnishing all materials including PVC pipe, pipe grate and backfill; for excavation, backfilling and compacting, for removing the temporary drainage riser, patching the permanent storm sewer pipe, and for backfilling and compacting.

56. Temporary Curb Ramp, Item SPV.0060.225.

A Description

This special provision describes providing, maintaining, moving, and removing temporary curb ramps where the plans show or engineer directs.

B Materials

Provide either asphalt or concrete conforming to the standard specifications.

For asphalt provide materials in accordance to standard spec 465.2.

For concrete provide materials in accordance to standard spec 602.2(2).

No QMP will be required for this work.

Furnish yellow cast iron detectable warning fields from the department's approved products list.

Furnish yellow surface applied detectable warning fields from the following manufacturers or approved equal:

1. ADA Solutions, Inc.
2. Alert Tile
3. Armor Tile

Cast iron detectable warning fields are not considered surface applied.

Furnish surface applied detectable warning fields in accordance to the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and having a minimum slip resistance coefficient of 0.80 wet and dry. Maintain the minimum slip resistance throughout construction. Provide a certification of the slip resistance to the engineer for approval prior to installation. The certification shall include the anticipated duration the slip resistance can be maintained under normal use conditions.

Test the slip resistance of the surface applied detectable warning fields in accordance to ASTM F 609-05 and AASHTO Draft T4-33 Part 9 as directed by the engineer throughout construction.

C Construction

For asphalt temporary curb ramps, construct in accordance to standard spec 465.3.1. For concrete temporary curb ramps, construct in accordance to standard spec 602.3.2. Saw existing curb as needed for temporary curb ramp construction.

Provide detectable warning field, curbing, grading and restoration for temporary curb ramps conforming to the plan details for permanent curb ramps. Match the width of the facility leading to the curb ramp. Conform to the requirements of the detectable warning field manufacturer and the current ADAAG.

Reconstruct or move temporary curb ramps if required for work operations. Maintain the temporary curb ramps including the detectable warning field, throughout the duration of the project to be compliant with the ADAAG and the manufacturer's specifications.

Construct temporary curb ramps with concrete and a cast iron detectable warning field when the temporary curb ramp and warning field will remain during and throughout the winter traffic pattern as provided in the construction staging plans or when the temporary curb ramp is used when snow is expected.

Construct temporary curb ramps with asphalt and a surface applied detectable warning field, or concrete and a cast iron detectable warning field for other temporary curb ramp locations in use when snow is not expected.

Remove temporary curb ramps and associated detectable warning fields as the staging plans provides or the engineer directs. Replace concrete curb to match adjacent curb. Install tie bars in accordance to the standard detail drawings.

D Measurement

The department will measure Temporary Curb Ramp as each individual temporary curb ramp, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0060.225	Temporary Curb Ramp	Each

Payment is full compensation for excavation and preparing the foundation; providing all materials including concrete or asphalt; maintaining, moving, reconstructing, removing temporary curb ramps, sawing, removing and replacing the curb, including installing tie bars; and restoring the site; and for cast iron or surface applied detectable warning fields.

57. Decorative Lighting Assembly LED A, Item SPV.0060.375.

A Description

This special provision describes furnishing and installing decorative light poles, arms, bolt covers, decorative lights, lamps, and appurtenances.

B Materials

Provide decorative lighting assembly as shown in the plans and as specified herein. Provide decorative LED lighting assembly including integral arm as manufactured by Sternberg Lighting, Gallery Model 1970LED Series fixture with 24 inch diameter shade, flat glass lens, Type III Distribution, Cat No. 6ARC35T3-MDL, 95 watt, 3500K Color Temperature, 120/277Volt Dimmable Driver, and Sternberg pole Barrington Series 25 foot Aluminum with 20 inch diameter clamp-on Clam-Shell Split Base with one access door located 180 degrees from fixture orientation, tapered 6 inches to 4 inches, 0.156 wall thickness, 6063-T6 structural grade aluminum, Ball Centered Cap, 6 foot DAG Series Arm, Ground Lug, Anchor Bolts and Anchor Base. Fixture, Pole, and Arm shall be factory painted black. Provide catalog cuts of the pole, arm and fixture assembly for confirmation to Jason Dupuis, City of Beloit, 2400 Springbrook Court, Beloit, WI, 53511, (608) 634-6735, prior to finalizing the order with the manufacturer. Fixture shall have 3 # 12, single conductor, stranded copper, RHW/USE insulated, rated 600Volt, AC conductors in the pole from the fixture head to the pole access door with additional 18 inches of slack wire at the access door. Sternberg Lighting is represented by Enterprise Lighting. Contact the Madison Office. Catalog Number: 1-1970LED-S/BTSR/FG/AHS-B/CAS6/5225T6-4.156/BCC.

C Construction

Construct in accordance to the applicable portions of standard spec 659 and the manufacturer's recommendations.

D Measurement

The department will measure Decorative Lighting Assembly LED A 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.0060.375	Decorative Lighting Assembly LED A	Each

Payment is full compensation for providing and installing all materials including hardware, fittings, mounting devices, wire and attachments necessary to completely install the decorative lighting assembly.

58. Decorative Light Assembly Concrete Base, Item SPV.0060.376.

A Description
This special provision describes furnishing and installing concrete bases in the locations shown in the plans.

B Materials
Provide concrete bases in accordance to section 654 and similar in design to the Type 2 concrete bases shown in Standard Detail Drawing "Concrete Bases, Types 1,2,5, and 6" except that the bolt circle shall be 11-1/2 inches square pattern.

D Measurement
The department will measure Decorative Light Assembly Concrete Base 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.0060.376	Decorative Light Assembly Concrete Base	Each

Payment is full compensation for providing concrete bases; for embedded conduit and electrical components; for anchor bolts, nuts, and washers; for bar steel reinforcement; and for excavating, backfilling, and disposing of surplus materials.

59. Lighting Control Cabinet, Item SPV.0060.377.

A Description
This special provision describes furnishing and installing Lighting Control Cabinet in the location shown in the plans.

B Materials
Provide control cabinets in accordance to standard spec 659 and as shown on the plans.

C Construction
Install control cabinets in accordance to standard spec 659.

D Measurement
The department will measure Lighting Control Cabinet 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.0060.377	Lighting Control Cabinet	Each

Payment is full compensation for providing the cabinet including circuit wiring connections, hardware, and fittings as the plans show.

60. Lighting Control Cabinet Concrete Base, Item SPV.0060.378.

A Description
This special provision describes furnishing and installing a concrete base in the location shown in the plans.

B Materials
Provide a concrete base in accordance to standard spec 654, and similar in design to the Type 9 concrete control cabinet base shown in Standard Detail Drawing "Concrete Control Cabinet Bases" with the materials and modifications shown on the plans.

D Measurement
The department will measure Lighting Control Cabinet Concrete Base as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.378	Lighting Control Cabinet Concrete Base	Each

Payment is full compensation for providing concrete bases; for embedded conduit and electrical components; for anchor bolts, nuts, and washers; and for excavating, backfilling, and disposing of surplus materials.

61. Relocate Street Light, Item SPV.0060.379.

A Description
This special provision describes relocating a street light in the location shown in the plans.

B Materials
Furnish rigid non-metallic conduit that is according to the pertinent requirements of standard spec 652.

C Construction
Contact the City of Janesville, Dennis Ryan at (608) 755-3171 three days prior to construction to arrange to have the lighting circuit de-energized. Pull the wires back into the adjoining street light to allow for cutting the conduit and removing the concrete base. Make temporary wiring connections to allow the remainder of the street light circuit to be re-energized. Remove and store the street light pole arms and luminaire off-site in a manner that prevents any damage. Connect the existing conduit into the new concrete base and reconnect the wiring. Reinstall the street light on the new concrete base.

D Measurement
The department will measure Relocate Street Light 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.0060.379	Relocate Street Light	Each

Payment is full compensation for removing, storing and reinstalling the street light; for electrical disconnection and reconnection; for connecting the existing conduit to the new base; for furnishing all necessary hardware, and for excavating, backfilling and disposing of surplus materials. Removal of the existing concrete base will be paid for under the item of Removing Concrete Bases, and the new concrete base will be paid for under the item of Concrete Bases Type 5.

62. Install Cellular Modem, Item SPV.0060.401.

A Description
This special provision describes installing a department-furnished cellular modem and antenna.

B Materials
The department will furnish a cellular modem and antenna.

Provide all necessary cables and connectors between the cellular modem and antenna, as well as to other devices.

C Construction
Install the cellular modem and antenna as indicated on the plans. Make connections between the cellular modem and antenna, as well as to other devices as shown on the plans, or as directed by the engineer. The contractor shall mount the antenna in a way that maximizes signal strength.

D Measurement
The department will measure Install Cellular Modem 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.0060.401	Install Cellular Modem	Each

Payment is full compensation for installation of the cellular modem and antenna, furnishing and installing all necessary hardware, making all necessary connections, making the cellular modem fully operational, and for testing.

63. Install Solar Power Assembly, Item SPV.0060.402.

A Description

This section describes installing department-furnished solar power assembly on a pole, as specified in standard specs 651, 652, 655, 670, and 675, as shown on the plans, and as provided hereinafter.

B (Vacant)

C Construction

Meet with the engineer to discuss specific requirements of the solar power assembly prior to installation. Install and test the charge regulator, solar battery, and DC to AC converter in the enclosure. Make the necessary electric connections between the components of the solar power assembly. Mount all solar panels and enclosure; all necessary hardware for mounting is incidental.

Program and configure the solar power assembly according to the manufacturer's instructions. Coordinate with the cabinet, panel, and pole manufacturer and submit design shop drawings on installation of solar power cabinet and panels per AASHTO structure and wind load requirements.

The solar power assembly shall be activated and left on for 30 consecutive days. During this period, all materials and components of the solar power assembly must operate as specified and without any failure. In the event of a failure, the engineer will suspend the 30-day test until the failures are corrected, at which time the test will resume.

This item includes installation of all solar panels, batteries and cabinets at each location as required on the plans.

D Measurement

The department will measure Install Solar Power Assembly as each individual install solar power assembly, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.402	Install Solar Power Assembly	Each

Payment for Install Solar Power Assembly is full compensation for installing all solar power panels, batteries and cabinets on a pole, for furnishing all mounting hardware, for making all connections, for furnishing all programming and configuration; for furnishing

all testing; for furnishing all incidentals necessary to complete the contract work; and for making the solar power assembly fully operational.

64. 50-Foot Wood Pole, Item SPV.0060.403.

A Description
This special provision describes furnishing and installing a 50-foot wood pole.

B Materials
Furnish a Class II wood pole conforming to the American Standard Specifications and Dimensions for Wood Poles (ANSI 2051).

Treat the wood pole in accordance to the requirements and recommendations of AWPA Standard C1 and the applicable AWPA Commodity Standards. Do not use Creosote for treatment.

Furnish ground rod(s), wires and other components per National Electric Code.

Furnish and install conduit and equipment in accordance to the plans.

Furnish and install guy wires and support cables at all wood poles that have aerial power cables.

C Construction
Install the wood pole with 10 feet of the pole below ground or deeper as required by soil conditions.

Install all hardware as represented on the plans.

Install grounding components per National Electric Code.

D Measurement
The department will measure 50-Foot Wood Pole 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.0060.403	50-Foot Wood Pole	Each

Payment is full compensation for furnishing and installing the wood pole, furnishing and installing all necessary hardware, and making all necessary connections. Grounding components, guy wires, support cables, and rigid metallic conduit are incidental to this item.

65. 65-Foot Wood Pole, Item SPV.0060.404.

A Description

This special provision describes furnishing and installing a 65-foot wood pole.

B Materials

Furnish a Class II wood pole conforming to the American Standard Specifications and Dimensions for Wood Poles (ANSI 2051), unless otherwise specified by the engineer.

Treat the wood pole in accordance to the requirements and recommendations of AWPA Standard C1 and the applicable AWPA Commodity Standards. Do not use Creosote for treatment.

Furnish ground rod(s), wires and other components per National Electric Code.

Install conduit and equipment in accordance to the plans.

Furnish and install guy wires and support cables at all wood poles that have aerial power cables.

C Construction

Install the wood pole with 13 feet of the pole below ground or deeper as required by soil conditions.

Install all hardware as represented on the plans.

Install grounding components per National Electric Code.

See signal plans for electrical service at the signal cabinet.

D Measurement

The department will measure 65-Foot Wood Pole 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.0060.404	65-Foot Wood Pole	Each

Payment is full compensation for furnishing and installing the wood pole, furnishing and installing all necessary hardware, and making all necessary connections. Grounding components, guy wires, support cables, and rigid metallic conduit are incidental to this item.

66. Concrete Bases Type 10, Contractor Supplied Anchor Bolts and Anchor Rod Template, Item SPV.0060.475; Concrete Bases Type 13, Contractor Supplied Anchor Bolts and Anchor Rod Template, Item SPV.0060.476.

A Description

This special provision describes constructing concrete bases, including the use of contractor supplied anchor bolts and anchor rod templates.

B Materials

B1. Concrete Bases

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. Provide QMP for class III ancillary concrete as specified in standard spec 716.

Furnish bar steel reinforcement conforming to standard spec505.2.

Use schedule 40 PVC electrical conduit conforming to the electrical conduit specified in standard spec 652.

B2. Anchor Bolts

Provide anchor bolts conforming to AASHTO M 314, grade 55 and Supplementary Specification S1, or ASTM F1554 Grade 55. Threads on bolts shall be formed by rolling.

Hot-dip galvanize the entire length of the anchor rods according to AASHTO M111. Hot-dip the nuts and washers according to AASHTO M232. Use zinc coated nuts manufactured with sufficient allowance to allow nuts to run freely on the threads.

B3. Anchor Rod Template

Furnish a steel top and bottom template conforming to ASTM A709, grade 36 as part of each anchor assembly. Provide a top template of sufficient gauge to hold the anchor rods securely in position at the top, and resist racking or twisting during the pour. Use a ½-inch thick bottom anchor plate-template and secure it to each anchor rod. Templates shall not be welded to the anchor rods.

C Construction

C1. Concrete Bases

Construct concrete bases, including necessary hardware, as specified in standard spec 501 and plan details, and provide the surface finish specified in standard spec 502.3.7.2 of the standard specification. Inspect the forming and applicable reinforcement for concrete bases before pouring the concrete. Cure exposed portions of concrete bases as specified for concrete pavement in standard spec 415.3.12 of the standard specification except the contractor may use curing compound conforming to standard spec 501.2.9. Wait at least 7 days before installing poles.

C2. Anchor Bolts
Lubricate anchor bolt threads and nuts with bees wax or other high-wax lubricant. Set leveling nuts to the required elevation before installing the structure. Adjust top nuts and leveling nuts to align and plumb the structure. Ensure that all nuts are snug-tight with no gaps. Tighten each top nut 1/3 turn past snug for bolts 1 1/2 inch or smaller in diameter and 1/6 turn for larger diameter bolts conforming to the tightening sequence specified on department form DT 2321. If required, install jamb nuts wrench tight.

Complete department form DT 2321 for each structure. Indicate the parties responsible for the installation and submit the form to the engineer for inclusion in the permanent project record.

C3. Anchor Rod Templates
Secure the anchor rod template to all anchor rods at one time in its correct position as the plan details show. Ensure relative movement and misalignment does not occur. If any twisting, racking, or other movement of the anchor rods out of plumb, projection, or pattern, or any damage to the threads exists the engineer will reject the entire base.

Maintain the clear distance between the soil and the reinforcing steel cage using the means the plan detail shows. Do not weld the anchor rods to each other, the reinforcing steel cage, and the templates or to any other component of the foundation.
If an anchor rod template is located above the concrete surface, it may be removed 24 hours after placing the concrete.

D Measurement
The department will measure Concrete Bases (Type) Contractor Supplied Anchor Bolts and Anchor Rod Template 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.0060.475	Concrete Bases Type 10, Contractor Supplied Anchor Bolts and Anchor Rod Template	Each
SPV.0060.476	Concrete Bases Type 13, Contractor Supplied Anchor Bolts and Anchor Rod Template	Each

Payment is full compensation for providing concrete, reinforcing steel, and electrical conduit; for providing anchor rods, templates, nuts, and washers; for excavating; for driving steel piling if required; for installing electrical conduit, electrical ground, templates; for placing and curing concrete; for backfilling; and for disposing of surplus material and restoring the site.

67. Poles Type 9, Item SPV.0060.477; Poles Type 12, Item SPV.0060.478; Poles Type 13, Item SPV.0060.479.

A Description
Work under this item consists of furnishing and installing monotube poles.

B Materials
Design support structures conforming to the minimum wall thickness the plan details show and to AASHTO design and fabrication standards for structural supports for highway signs, luminaries, and traffic signals. Use a design life of 50 years. Design to withstand a 3 second gust wind speed of 90 mph (145 km/h). Do not use the methods of Appendix C of those AASHTO standards.

Use Category III criteria for Type 9 and Type 10 Poles. Use Category II criteria for Type 12 and Type 13 Poles.

For structures requiring a fatigue analysis, use 45 mph (72 km/h) for truck-induced gusts.

After welding and before zinc coating, clean the exterior surface of each steel pole free of all loose rust and mill scale, dirt, oil or grease, and other foreign substances.

Apply a zinc coating conforming to the process specified for steel sign bridges in standard spec 641.2.8. Ensure that the zinc coating is tight, free from rough areas or slag, and presents a uniform appearance.

Furnish Poles Type 13 for the CTH G/CTH BT intersection with a factory applied black finish.

After completing manufacturing, clean the exterior surfaces of each pole free of all loose scale, dirt, oil or grease, and other foreign substances.

Provide a reinforced hand hole measuring 4 inches by 6 inches (100 mm by 150 mm) as the plans show. Locate the hand hole 18 inches (450 mm) from the bottom of the pole base to the center of the door.

For the hand hole, include an access cover mounted to the pole by two ¼”-20 x ¾” (m6 x 1.00 x 19 mm) hex-head stainless steel bolts.

Provide a grounding lug complete with mounting hardware, as required, inside the pole as the plans show.

Provide access to the grounding lug from the hand hole. Weld the ground lug directly opposite the hand hole on the inside wall of the pole.

Equip the top of the shaft with a removable, ventilated cap held securely in place by at least 3 ¼” -20 x ¾” (m6 x 1.00 x 19 mm) hex-head stainless steel set screws.

Ensure that all castings are clean, smooth, and with all details well defined and true to pattern.

Attach base plates firmly to the pole shaft by welding or other approved method.

Include anchor bolts meeting AASHTO standards applicable to the pole type and loading. Provide a mounting template that ensures correct installation of anchor bots in foundation.

C Construction
Install poles as specified in the plan details and using appropriate contractor-furnished anchor bolts and hardware. Use the appropriate anchor bolt template to ensure correct installation. Secure pole to anchor assembly and document tensioning procedures conforming to standard spec 641.3.1.2.

After completing erection using normal pole shaft raking techniques, ensure the centerline of the shaft appears vertical.

D Measurement
The department will measure Poles (Type) as each individual pole, 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.0060.477	Poles Type 9	Each
SPV.0060.478	Poles Type 12	Each
SPV.0060.479	Poles Type 13	Each

Payment is full compensation for providing and installing poles including all hardware and fittings necessary to install the poles including the factory applied black finish for Poles Type 13.

68. Monotube Arms 20-FT, Item SPV.0060.480; Monotube Arms 35-FT, Item SPV.0060.481; Monotube Arms 50-FT, Item SPV.0060.482.

A Description
Work under this item consists of furnishing and installing monotube arms.

B Materials
Design support structures conforming to the minimum wall thickness the plan details show and to AASHTO design and fabrication standards for structural supports for highway signs, luminaires, and traffic signals. Use a design life of 50 years. Design to withstand a 3 second gust wind speed of 90 mph (145 km/h). Do not use the methods of appendix C of those AASHTO standards.

Use category III criteria for 15 to 30-foot arms. Use category II criteria for 35 to 55-foot arms.

For structures requiring a fatigue analysis, use 45 mph (72 km/h) for truck-induced gusts.

Base the designs on the completed maximum loading configuration the standard detail drawing shows. Along with the materials list, submit a certificate of compliance certifying that the arms as furnished, conform to the above structural performance requirements. Ensure that the certificate of compliance is on the manufacturer's letterhead, signed by an authorized company officer, and notarized. Send a copy of the certificate and a copy of the monotube arm shop drawings to the department electrical engineer.

Furnish monotube arms conforming to the following:

1. Consist of zinc coated steel round or oval members.

2. Have a mounting device welded to the pole end of the monotube arm that allows the attachment of the arm to a pole as the plans show.

3. Have stiffeners or gussets if required between the arm tube and the arm mounting device to provide adequate strength to resist side loads.

4. Have a clean, uniform natural finish. No paint or other corrosion preventive maintenance coating is required.

After welding and before zinc coating, clean exterior surfaces of each arm free of all loose rust and mill scale, dirt, oil or grease, and other foreign substances.

Furnish Monotube Arms 50-FT for the CTH G/CTH BT intersection with a factory applied black finish.

Apply zinc coating as specified for sign bridge components in standard spec 641.2.8. Ensure that the zinc coating is tight, free from rough areas or slag, and presents a uniform appearance.

After manufacturing is complete, clean the exterior surfaces of each pole free of all loose scale, dirt, oil, or grease, and other foreign substances.

C (Vacant)

D Measurement

The department will measure Monotube Arms (Length) as each individual arm, 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.0060.480	Monotube Arms 20-FT	Each
SPV.0060.481	Monotube Arms 35-FT	Each
SPV.0060.482	Monotube Arms 50-FT	Each

Payment is full compensation for providing and installing all materials including the factory applied black finish for Monotube Arms 50-FT, including all hardware, fittings, mounting devices, shims, and attachments necessary to completely install the arms.

69. Traffic Signal Controller and Cabinet Fully Actuated 8-Phase, Item SPV.0060.483.

A Description

This specification describes furnishing and installing a fully equipped and operational NEMA TS2 Type 2 traffic signal control cabinet.

B General Requirements

B.1 General

Furnish and install equipment and assemble the cabinet conforming to the latest revision of NEMA Standards Publication TS 2-2003, *Traffic Controller Assemblies with NTCIP Requirements*, National Electrical Manufacturers Association, hereinafter called NEMA TS2 Standard, except where modified in this specification. All work shall conform to the Wisconsin State Electrical Code (WSEC). All work shall conform to standard spec 651 as supplemented or modified in this specification.

Provide cabinets designed for TS2 Type 2 operation. Pre-wire cabinets for a minimum of sixteen phases as specified herein.

The traffic signal controller shall be an Eagle Signal Controls EPAC 3808M51.

Furnish and install at no extra cost any equipment and materials not specifically described but required in order to perform the intended functions in the cabinet.

Install the cabinet on the foundation and terminate all connections. Test for correct operation.

B.2 Definitions

Contractor or vendor – the firm under contract with the county or other entity for furnishing and installing the traffic signal cabinet

Construction contractor – the firm under contract with the county or another entity to construct a roadway facility. The construction contractor may designate a subcontractor, such as an electrical subcontractor, to represent them with regards to the signal cabinet installation.

County – Rock County

Manufacturer – the firm that builds or produces the traffic signal equipment other than the cabinet. For example, the "controller manufacturer"

C Cabinet

C.1 Design

Furnish a door-in-door ground mounted (without anchor bolts) aluminum cabinet of clean-cut design and appearance. Provide a cabinet of minimum size 44 inches wide, minimum 24 inches deep and minimum 52 inches to maximum 60 inches high. The size of the cabinet shall provide ample space for housing the controller, all of the associated devices which are to be furnished with the controller, all other auxiliary devices herein specified, and all equipment to be furnished and installed by others as listed in the Description section of this specification.

The cabinet shall comply with the environmental and operating standards outlined in the NEMA TS2 Standard. The cabinet shall provide reasonable vandalism protection. The cabinet shall have a NEMA 3R rating.

Construct the cabinet from type 5052-H32 aluminum with a minimum thickness of 0.125 inches. Furnish the cabinet with a natural, uncoated, aluminum finish inside and outside. Continuously weld all seams. The surface shall be smooth, free of marks and scratches. Use stainless steel for all external hardware.

On the top of the cabinet, incorporate a 1-inch slope toward the rear to prevent rain accumulation. Incorporate a rain channel into the design of the main door opening to prevent liquids from entering the enclosure.

Include an exhaust plenum with a vent screen into the roof of the cabinet. Perforations in the vent screen shall not exceed 0.125 inches in diameter.

Equip the lower section of the cabinet door with a louvered air entrance. The air inlet shall be large enough to allow sufficient air flow per the rated fan capacity. Louvers must satisfy the NEMA rod entry test for Type 3R ventilated enclosures. Secure a washable, fiberglass, removable air filter to the air entrance. The filter shall fit snugly against the cabinet door wall. Attach an aluminum, easily removable, gasketed cover over the air filter and louver.

C.2 Doors

The cabinet door opening shall be a minimum of 80 percent of the front surface of the cabinet. The main door and police door-in-door shall each close against a weatherproof and dust-proof, closed-cell neoprene gasket seal. The gasket material for the main door

shall be a minimum of 0.188 inches thick by 1.00 inch wide. The gasket material for the police door shall be a minimum of 0.188 inches thick by 0.500 inches wide. Permanently bond the gaskets to the cabinet.

Equip the main door with a three-point latching mechanism. The upper and lower locking points of the latching mechanism shall each have a pair of nylon rollers. The handle on the main door shall utilize a shank of stainless steel 3/4 inches minimum diameter. The handle shall include a hasp for the attachment of an optional padlock. The cabinet door handle may turn either clockwise or counterclockwise to open, and shall not extend outwards past the edge of the door at any time. Position the lock assembly so the key will not cause any interference with the handle, or a person's hand on the handle, when opening the cabinet door.

Include on the main door a solid stainless steel rod stop and catch mechanism capable of rigidly holding the door open at approximately 90, 120, and 180 degrees under windy conditions. The operator must be able to engage and disengage the catch with a shoed or booted foot.

The main door hinge shall be a one-piece, continuous piano hinge with a minimum 0.25 inch stainless steel pin running the entire length of the right side of the door (right-handed). Attach the hinge in such a manner that no rivets or bolts are exposed.

Equip the main door with a brass Corbin tumbler lock No. 2, swing away dust cap, and provide two keys No. 2. Equip the police door-in-door with a standard police lock and provide one key.

Electrically bond the door to the rest of the cabinet with a braided copper grounding conductor. The length of the grounding conductor shall allow the door to swing fully open, without using the stop bar, without stretching or breaking the grounding conductor. The grounding conductor shall not interfere with normal door operation.

Provide a door switch for the main cabinet door. When the door is opened the switch shall send a signal to the controller sufficient for the controller to log an alarm.

C.3 Shelves and Mountings

Mount a minimum of three vertical "C" channels, compatible with Unistrut channel nuts, on each interior side wall of the cabinet for the purpose of mounting the cabinet components. The channels shall accommodate spring mounted nuts or studs. Install three vertical "C" channels or three slotted rails on the interior back wall of the cabinet. All mounting channels and rails shall extend to within 7 inches of the top and bottom of the cabinets and shall be of sufficient strength to rigidly hold specified shelves and equipment.

Provide two full-width, 11-inch deep, fully adjustable, aluminum shelves to support the controller and other equipment. Mount the lower shelf at a height above the bottom of the cabinet such that the shelf and attached drawer does not interfere with the ability to tilt the

terminal facility forward on its hinges for maintenance purposes. Mount the top shelf at least 13 inches above the surface of the lower shelf.

Locate the controller and Malfunction Management Unit (MMU) on the top shelf. Locate the loop detector racks and other auxiliary equipment on the lower shelf. The power supply may be mounted on either shelf.

Provide an under-shelf drawer under the lower shelf. The drawer shall be approximately 20 inches wide and the full depth of the shelf. The drawer shall operate easily and smoothly, and shall have a stop to prevent inadvertently pulling the drawer out of its support. Design the stop to allow purposeful complete removal of the drawer without the use of tools.

C.4 Auxiliary Cabinet Equipment

Ventilate the cabinet by means of a 120 VAC, 60HZ, tube axial compact type fan located in the top of the cabinet plenum. The fan's free delivery airflow shall be equal to or greater than 100 cubic feet per minute. The magnetic field of the fan motor shall not affect the performance of control equipment. The fan bearings shall operate freely. The fan unit shall not crack, creep, warp, or have bearing failure within a seven year duty cycle. The maximum noise level shall be less than 40 decibels. The fan unit shall be corrosion resistant. The thermostat's turn on setting shall be adjustable from 90 to 120 degrees F. The fan shall run until the cabinet temperature decreases below the turn-on temperature setting by approximately 30 degrees F. The fan shall be fused.

Mount an incandescent lamp and socket in the cabinet to sufficiently illuminate the field terminals. Wire the lamp to a 15-amp ON/OFF toggle switch mounted on the rear cover of the police panel as specified in the Cabinet Switches section of this specification.

Provide a 250 watt element heater. Install the heater on the face of the aluminum, louvered air filter cover such that feed air is supplied through the cover. Provide a protective, ventilated cover over the heater. Provide a cord and twist-off plug to an electrical receptacle on the cabinet door. Provide a thermostat with an adjustable setting from 0 to 100 degrees F. Install the thermostat on the interior ceiling of the cabinet well away from the cabinet light or any heat source. Provide a thermal limit switch to prevent the heater's protective cover from exceeding 170 degrees F.

D Terminals and Facilities

D.1 Terminal Facility

The terminal facility panel shall be constructed from 5052-H32 brushed aluminum of 0.125 inches minimum thickness and formed so as to eliminate any flexing when plug-in components are installed.

Mount the bottom of the terminal facility a minimum of nine inches from the bottom of the cabinet. Hinge the terminal facility at the bottom to allow easy access with simple tools to all wiring on the rear of the panel. It shall not be necessary to remove the lower shelf, the

shelf drawer, or any shelf-mounted equipment to hinge down the terminal facility. Provide sufficient slack in the load bay wiring to allow for dropping the load bay.

Fully wire the terminal facility with sixteen load switch sockets: eight phases of vehicular, four phases of pedestrian, and four phases of overlap operation; eight flash transfer relay sockets; one flasher socket; and two terminal facility Bus Interface Unit (BIU) rack slots. The use of printed circuit boards is not acceptable on the terminal facility, except printed circuit boards are acceptable for the BIU interface with the load bay. Position the 16 load switch sockets in two horizontal rows of eight sockets each. Support the load switches and flasher by a bracket or shelf extending at least three inches from the terminal facility.

Label all terminals, load switches, and flash transfer relay sockets. Label reference designators by silk-screening on the front and rear of the terminal facility to match drawing designations.

Provide rack mounted BIU's. Provide a dual-row, 64-pin female DIN 41612 Type B connector for each BIU rack position. Provide card guides for both edges of the BIU. Terminal and facilities BIU mounting shall be an integral part of the terminal facility.

Provide two each 16-channel, 8-position, TS2 detector racks, each with an integrally mounted BIU mounting. Racks shall be addressable. Power each detector rack by the cabinet power supply. Fasten the loop detector racks towards the left side of the lower shelf.

For BIU rack connectors, provide pre-wired address pins or jumper plugs corresponding to the requirements of the NEMA TS2 Standard. The address pins or jumper plugs shall control the BIU mode of operation. BIUs shall be capable of being interchanged with no additional programming.

For the terminal facility, contain all field wires within one or two rows of horizontally-mounted Marathon heavy duty terminal blocks. Terminate all field output circuits on an unfused terminal block with a minimum rating of 10 amps. Use mechanical connector lugs rated for copper wire. Angle the lower section of the terminal block out from the back of the cabinet at approximately a 45 degree angle.

Identify all field input/output (I/O) terminals by permanent alphanumeric labels. All labels shall use standard nomenclature per the NEMA TS2 Standard.

All field flash sequence programming at the field terminals shall be able to be accomplished with the use of only a screwdriver.

Wire field terminal blocks to use three positions per vehicle or overlap phase (green, yellow, red).

Wire one RC network in parallel with each flash transfer relay coil.

Permanently label all logic-level, NEMA-controller and MMU input and output terminations on the terminal facility. Identity the function of each terminal position on the cabinet drawings.
Terminal blocks for DC signal interfacing shall have a number 6-32 x 7/32 inch screw as minimum. Functions to be terminated shall be as specified in the listing of Input/ Output Terminals in Section 5 of the NEMA TS2 Standard.

Conform all terminal facility and cabinet wiring to the Wisconsin State Electrical Code (WSEC). The green/ walk, yellow, and red/ don't walk load switch outputs shall be minimum 16 gauge wire. The MMU (other than AC power), controller I/O, and logic ground shall be minimum 22 gauge wire. All wire colors shall be consistent in all cabinets furnished in one order.

D.2 Auxiliary Panels

D.2.1 Vehicle Detection Interface Panel

Provide a 32-position interface panel or two 16-position panels. Each interface panel shall allow for the connection of 32 or 16 independent field loops, respectively. The panels shall have barrier strip type terminals using 8-32 screws and be rated for 20 inch pounds of torque. Provide a ground bus terminal between each loop pair terminal to provide a termination for the loop lead-in cable ground wire. Secure the interface panels to a mounting plate attached to the left interior side wall of the cabinet.

Provide a cable consisting of 20 AWG twisted pair wires to enable connection to and from the interface panel to a detector rack. The twisted pair wires shall be color-coded wires. Provide a cable of sufficient length to allow the detector rack to be placed on either shelf.

Identify all termination points by a unique number silk screened on the panel.

D.2.2 Intersection Lighting

Provide an intersection lighting control panel as described. The intersection lighting control panel shall consist of an aluminum panel 0.125 inches thick and approximately 5 inches by 10 inches. Determine the actual panel size by the cabinet’s mounting rail placement. Attach to the panel a 2 pole-30 amp contactor-120vac coil (Square D #8910DPA32V02 or equal), and a heavy duty six position terminal block (Marathon DJ1606 or equal). Use wire sizes 10AWG for power and load wiring, and 16AWG for control wires. Wire the terminal strip as follows:

1. Control coil
2. L1 in
3. L2 in
4. Neutral in and control coil
5. L1 out
6. L2 out

Protect each output by a MOV (V150LA20A) wired between the output and neutral. Include a photo control (Intermatic #K4021C or equal). Mount the photo control just above the cabinet door and approximately 12 inches from the right side of the cabinet. Wire the photo control to a 3 position terminal strip using 16AWG wire color coded to match the photo control wiring connected to the intersection lighting control panel.

D.3 Conductors and Cabling

All conductors in the cabinet shall be copper 22 AWG or larger. All 14 AWG and smaller wire shall conform to MIL-W-16878/1, Type B, 600V, 19-strand tinned copper. The wire shall have a minimum of 0.010 inches thick PVC insulation without clear nylon jacket and rated to 105 degrees Celsius. All 12 AWG and larger wire shall be UL or NRTL listed THHN/THWN 90 degrees Celsius, 600V, 0.020 inches thick PVC insulation, and clear nylon jacketed.

Provide controller and MMU cables of sufficient length to allow the units to be placed on either cabinet shelf in the operating mode. Connecting cables shall be sleeved in a braided nylon mesh. Exposed tie-wraps and interwoven cables are unacceptable.

Provide the cabinet configuration with enough SDLC RS-485 Port 1 communication cables to allow full capabilities of that cabinet. Each communication cable connector shall be a 15-pin metal shell D subminiature type. The cable shall be a shielded cable suitable for RS-485 communications. Secure all connecting cables and wire runs by mechanical clamps. Stick-on type clamps are not acceptable.

Pre-wire the terminal facility for a Type 16 MMU.

All wiring shall be neat in appearance. Stow excess cable behind the terminal facility or below the shelves in order to allow easy access to the terminal facility and cabinet components. All cabinet wiring shall be continuous from its point of origin to its termination point. Butt type connections/splices are not acceptable.

Wire the grounding system in the cabinet into three separate circuits: AC Neutral, Earth Ground, and Logic Ground.

Optoisolate all pedestrian pushbutton inputs from the field to the controller through the BIU and operate at 12 VAC.

Hook or loop all wire, size 16 AWG or smaller, at solder joints around the eyelet or terminal block post prior to soldering to ensure circuit integrity. Lap joint soldering is not acceptable.

D.4 Cabinet Switches

Locate the following switches on a maintenance panel on the inside of the cabinet door:

a. Controller On/Off
b. Cabinet Light
c. Stop Time (Three Position)
d. Manual Detector Switches (Three Position)

Position	Switch Label	Function
Upper	Stop Time	Place stop time on the controller
Center	Run	Remove the stop time input to the controller
Lower	Normal	Connects the MMU to the controller stop time input

Locate the following switches behind the police access door:

a. Signal/Off
b. Flash/Normal
c. Hand/ auto
d. Coiled hand control and cable

The above switches shall function as follows:

Off: Signals Dark
Signal: Signals On and operating as follows:

Auto		Hand
Flash:	Signals Flash	Signals Flash
Normal:	Signals Normal	Signals Advance by use of hand control

Provide manual detector switches. Provide a minimum of 16 vehicle detector switches, and four pedestrian detector switches. The switches shall be spring loaded and automatically return to the center position. Wire the vehicle detector switches to detector BIU slot 1. Wire the pedestrian switches to the T&F BIU slot 1. The switches shall operate as follows:

Position	Function
Up	Detector Disabled
Center	Detector Enabled
Down	Detector Called

E Power Panel

E.1 Design

The power panel shall consist of a separate module, securely fastened to the interior right side wall of the cabinet. Wire the power panel to provide the necessary power to the cabinet, controller, MMU, cabinet power supply, and all auxiliary equipment. Manufacture

the power panel from 0.090-inch, 5052-H32 aluminum. Panel layout shall facilitate field inspection and maintenance accessibility without excessive disassembly or special tools.

Provide a light, tough, transparent, weather-resistant, non-yellowing, thermoplastic cover, rigidly mounted over the full power panel, with access holes for circuit breakers and other equipment, and open on the sides for ventilation.

E.2 Bus Bar

Provide a minimum 20-position neutral bus bar capable of connecting three #12 AWG wires per position.

E.3 Circuit Breakers

House in the power panel the following vertically mounted, single pole, 120 volts AC, 60 Hertz, circuit breakers, with the ON position being up:

- One 30-amp signal breaker. This breaker shall supply power for all cabinet functions not powered through one of the other breakers or fuses listed below. Streetlights will be powered from outside the cabinet in the meter breaker pedestal. This breaker shall feed a signal bus supplied through a solid state bus relay and a radio interference line filter. The bus relay, in all cases, shall be a solid state contactor and shall not be jack mounted. Breakers shall be thermal magnetic type, UL or NRTL listed, with a minimum of 22,000 amp interrupting capacity.

- One 15-amp auxiliary breaker. This breaker shall supply power to the fan and heater**.**

- One 10-amp breaker. This breaker shall supply power for control equipment: controller, MMU, and cabinet power supply.

- One 20-amp circuit breaker for future use.

Power the cabinet light through the GFI fuse, not a circuit breaker.

E.4 Radio Interference Suppressor

Equip each control cabinet with a single radio interference suppressor (RIS) of sufficient ampere rating to handle the load requirements. Install the RIS at the input power point. The RIS shall minimize interference in both the broadcast and the aircraft frequencies, and shall provide a maximum attenuation of 50 DB over a frequency range from 200 KHZ to 75 MHZ, when used in connection with normal installations. The RIS shall be hermetically sealed in a substantial metal case filled with a suitable insulating compound. The terminals shall be nickel-plated brass studs of sufficient external length to provide space to connect two #8 AWG wires and shall be so mounted that they cannot be turned in the case. Ungrounded terminals shall be properly insulated from each other, and shall maintain a surface leakage distance of not less than 6.35 mm between any exposed current conductor and any other metallic parts. The terminals shall have an insulation factor of 100-200 megohms dependent upon external conditions. The RIS shall

be rated at minimum 50 amperes. Design the RIS for operation on 115 VAC +/- 10%, 60HZ, single-phase circuits, and to meet the standards of UL or a NRTL and Radio Manufacturer's Association.

E.5 Bus Relay
Provide a normally-open, 60 amp, solid state relay.

E.6 Surge Protector
Install a plug-in type EDCO SHA-1250, or Atlantic/Pacific approved equal, surge protector across the load terminal of the 10-amp circuit breaker. Install a General Electric Varistor, catalog #V130PA20A, at the load terminals of the circuit breaker from the hot line to the grounded current carrying neutral conductor.

E.7 Power receptacles
Mount a 120 VAC 20 amp**,** NEMA 5-20R GFCl duplex convenience outlet at each of these two locations:

- On the interior right side wall above the power panel. The outlet shall be fully operational and fuse protected.

- Near the power panel where it will not interfere with power panel maintenance**.** This outlet is to be wired by field installation personnel.

E.8 Suppressors and RC Network
Provide a suppressor for each 120 VAC circuit that serves an inductive device, such as a fan motor or a mechanical relay, to protect the controller's solid state devices from excessive voltage surges. Such suppressors shall be in addition to the surge protector at the input power point. Wire one RC network in parallel with each inductive device.

F Auxiliary Devices
F.1 Load Switches
Provide 16 solid state load switches conforming to the requirements of section 6.2 of the NEMA TS2 Standard.

F.2 Flashers
Provide one solid state flasher conforming to the requirements of section 6.3 of the NEMA TS2 Standard.

F.3 Flash Transfer Relays
Provide four flash transfer relays conforming to the requirements of section 6.4 of the NEMA TS2 Standard.

F.4 Inductive Loop Detector Units
Provide the quantity of inductive loop detector units required by the plans and conforming to the requirements of section 6.5 of the NEMA TS2 Standard for 2-channel, rack mount detector units, type C. Install all required units in one detector rack.

F.5 Cabinet Power Supply
Provide one cabinet power supply with each cabinet conforming to the requirements of section 5.3.5 of the NEMA TS2 Standard. Provide LED indicators for the 12 VDC, 12 VAC, and 24 VDC outputs. Provide jack plugs on the front panel for access to the +24 VDC for test purposes.

G Bus Interface Units (BIU)
Provide three BIUs conforming to the requirements of section 8 of the NEMA TS2 Standard. Provide two BIUs with the main panel and one BIU with one of the detector racks.

H Malfunction Management Unit (MMU)
Provide one shelf-mountable, 16 channel, solid-state MMU with Ethernet capability. The MMU shall meet the requirements of Section 4 of the NEMA TS2 Standard.
The MMU shall be capable of the following:

- Detecting simultaneously active inputs of Green (Walk), Yellow, or Red (Don't Walk) on the same channel.
- Determining if the field signal input states detected as active or inactive by the MMU correspond with the data provided by the Controller Unit.
- Monitoring an optional external watchdog output from a Controller Unit or other external cabinet device.
- Monitoring an intersection with up to four approaches using the Flashing Yellow Arrow (for protected/permissive left and right turn movements).
- Event logging for the following; AC Line log, Prior/Previous Faults log, and Monitor Reset Log. All log entries shall include a date and time stamp.
- All monitor functions shall be capable of being programmed through the front panel, without the need for computers or special programs cards.
- A built-in Diagnostic Wizard shall be provided that displays detailed diagnostic information regarding the fault being analyzed. This mode shall provide a concise view of the signal states involved in the fault, pinpoint faulty signal inputs, and provide guidance on how the technician should isolate the cause of the malfunction.

The MMU shall have an LCD display that allows for viewing of log files and field indications, as well as the viewing and setting of date and time and configuration parameters.

I Traffic Signal Controller

The traffic signal controller provided shall be a Siemens m50 series model EPAC3808M51, compatible with the NEMA TS2 Type 2 specifications.

I.1 Firmware

Provide installed in the controller current, fully operational, controller firmware and software sufficient for the controller to perform all functions shown on the plans, sequence of operation plan sheet, specifications, and signal timing plan for the local intersection. Provide all software licenses.

The firmware and software shall be compatible with and able to fully communicate with:

- All phase sequences used by the County, including flashing yellow for both left and right turns.
- Communications, closed loop, and on-street control software designed for use with the provided controller and provided under separate bid items.
- Both the controller and the MMU.
-
- County PC laptop and desktop computers with Windows XP and Windows 7 operating systems
- The supplier's multi-level central operation software programs for potential future Application.

I.2 Features/ Functions

I.2.1 General

Provide shelf-mounted controller units.

Provide intersection controller units with up to 16-phase operation plus 16 programmable overlaps regardless of whether or not preemption, coordination, or other special programming is used.

Provide a four-ring, programmable for both single and dual entry concurrent timing, nine-phase frame or equivalent. Provide volume density timing for eight phases and pedestrian timing for all phases. Provide MUTCD flash capability. All controls shall be in accordance with the NEMA TS2 Standard.

All controller timing parameters shall be fully programmable from the front panel keyboard inputs, and memory storage features shall be non-volatile under power-off conditions for at least thirty days. A security code must be entered before any timing parameters can be changed. The locking, non-locking detection mode and per phase recall shall also be accessible on the front panel.

Provide a data key port on the controller to load and store intersection programming.

Internally buffer all logic circuit inputs to withstand transients and noise, such as might result from normal usage, without damage to any mechanism components.

I.2.2 Front Panel Display

Provide a display panel on the front panel consisting of a backlit alphanumeric LCD display. The face of the display shall be scratch, chemical, and solvent resistant. The operator shall access the controller through a menu system. By selecting various menu options, real time operational status or stored parameter tables shall be presented to the operator.

Show on the LCD display, in addition to information required elsewhere:

- The status of each signal phase on.
- The interval status.
- Phase termination information.
- The presence of vehicular and pedestrian calls for each phase.

I.2.3 Timing

The passage timer shall time concurrently with the minimum green timer, such that the duration of the minimum green time is directly adjustable and is independent of the passage time setting.

In the dual-ring application, no more than two phases shall be permitted to time concurrently, and no more than one phase per ring. Provide barrier protection against concurrent timing of two conflicting phases; no phases assigned to one side of the barrier shall be permitted to time concurrently, if a conflict will occur. Service calls on a single entry basis. Both rings shall cross the barrier simultaneously in accordance with the following logic:

- Phases timing concurrently shall terminate simultaneously if both have a gap-out due to excessive time between actuations.
- Phases timing concurrently shall terminate simultaneously if both have a maximum timeout.
- Phases timing concurrently shall terminate simultaneously if one has a gap-out and the other has a maximum time-out.
- In the event that one phase has not achieved a gap-out or maximum time-out, the other gapped-out phase shall be permitted to leave the gapped-out condition and retime an extension when an actuation is received.

Controllers shall not accept any operator input or stored timing parameters that would result in intervals shorter than the following:

- Yellow clearance - 3.0 seconds
- Standard minimum walk - 4.0 seconds
- Preemption minimum walk = 0.0 seconds
- Minimum pedestrian clearance - 6.0 seconds

At the beginning of each of the above intervals, the controller shall check the previously stored data against these minimums. If an operator attempts to load an incorrect timing parameter the controller unit shall output a unique error code on the front panel display. As an alternate to minimum timing control a coded keyboard entry security feature may be provided.

I.2.4 Manual (Police) Control

If manual control is used, actuation of the manual control shall permit manual advance of the Walk, Pedestrian Clearance, and Green interval terminations only. Manual termination of Yellow or All-Red clearance intervals shall not be permitted.

I.2.5 Coordination

The controller shall be capable of operation in progressive coordination systems and mutual coordination and shall contain, but not be limited to, the following external inputs, with all functions brought out:

- Vehicle/Pedestrian Detectors (per phase)
- Pedestrian Omit (per phase)
- Phase Omit (per phase)
- Hold (per phase)
- Omit Red Clearance (per ring)
- Internal Maximum Inhibit (per ring)
- Maximum II (per ring)
- Red Rest (per ring)
- Stop Timing (per ring)
- Force-Off (per ring)
- Select Minimum Recall (per controller)
- Manual Control (per controller)
- Semi-Modes (per controller)
- External Start (per controller)

I.2.6 Diagnostic Program

Provide a diagnostic program prepared by the manufacturer of the controller unit which will demonstrate the proper operation of all of the inputs, outputs, controls and indicators in the controller, and have visual confirmation on the front panel. The diagnostic program shall be resident in each controller. The controller shall continuously run a diagnostic routine in the background to assure unit integrity.

I.2.7 Message Logging
Provide user programmable, data logging of local events or alarm events including, but not limited to: Conflict Flash, Remote Flash, Local Flash, Controller Voltage Monitor, Detector Failure, On Line and Data Change. The time and date shall be recorded as a part of the message logged. The logging function shall be resident in the controller unit. The logging function shall be viewed from the front panel LCD display. If the logging function cannot be viewed from the front panel LCD display, it shall be performed by supplemental auxiliary equipment supplied with this specification.

I.2.8 Closed Loop Operation
The controller shall be able to be used in a closed loop system using twisted pair copper, single mode fiber, multimode fiber, or wireless radio to connect to compatible equipment.

I.2.9 RS-232 Interface and Ethernet Port
Provide a RS-232C interface and connector for interconnecting to a conflict monitor, printer, another like controller unit, or a local personal computer, as well as a remote personal computer through an external modem. A modem is not required to be provided with this specification. Include Ethernet communications capability as a standard feature and provide an Ethernet port. Ports shall be on the front panel of the controller.

J Documentation
J.1 Cabinet Intersection Wiring Diagrams
For each individual cabinet ordered, within 10 calendar days after receipt of the procurement order, furnish to the County engineer two sets of 22X34-inch detailed printed cabinet intersection wiring diagrams for information only.

At the time of the cabinet delivery, furnish to the County engineer two sets of printed 22X34-inch cabinet intersection wiring diagrams per cabinet. Printing the 22X34-inch sheet in smaller sizes is not acceptable. Leave a third drawing in the under-shelf drawer in the signal cabinet. After cabinet acceptance is complete, if any cabinet wiring changes were made, revise the cabinet wiring diagrams, leave one drawing in the under-shelf drawer in the signal cabinet, and furnish to the County engineer two sets of as-built printed cabinet wiring diagrams per cabinet. If no changes were made from time of cabinet delivery, notify the County engineer in writing.

J.2 MMU and Controller Programming
At the time of cabinet delivery, furnish to the County engineer two printed copies of the MMU programming and two copies of the signal timing in the traffic signal controller. Leave a third copy in the under-shelf drawer in the signal cabinet. After cabinet acceptance is complete, if any MMU or controller timing changes were made, revise the documents, leave one copy in the under-shelf drawer in the signal cabinet, and furnish to the County engineer two copies per cabinet. If no changes were made from time of cabinet delivery, notify the County engineer in writing.

J.3 Manuals

At the time of the cabinet delivery, furnish to the County engineer one set of installation, operations, and maintenance manuals per cabinet including each type of equipment in the cabinet. The manuals shall as a minimum include the following information:

- Table of contents
- Operating procedure
- Step-by-step maintenance and trouble-shooting information for the entire assembly
- Schematic diagrams
- Pictorial diagrams of parts locations
- Itemized parts lists with parts numbers
- Theory of operation
- Maintenance checklists.

The itemized parts lists shall include the manufacturer's name and parts number for all components (such as IC, diodes, switches, relays, etc.) used. The list shall include cross references to parts numbers of other manufacturers who make the same replacement parts.

For each of the traffic signal controller and MMU, in addition to the above manual requirements, furnish one reference manual for the processor and components proposed to perform the controller and MMU functions. Include a complete set of schematics for the controller, MMU, and any auxiliary circuit boards either in the reference manual or in a separate volume. In addition, furnish a written narrative describing the controller and MMU operation and front panel configuration, and a conceptual flow chart illustrating the control logic for comparison with these specifications. The narrative shall include a discussion of any limitation or exceptions to the performance described in these specifications, and a discussion of any control capabilities provided in addition to that required in these specifications.

K Cabinet Delivery

The construction contractor will provide the traffic signal specifications and plans, including the sequence of operation, to the contractor. The vendor shall determine the required cabinet equipment and assembly requirements from the plans and specifications and provide the county engineer a list of procurement items. The county engineer will approve or request resubmittal of the procurement items list prior to the cabinet being built.

Provide the list of procurement items to the county engineer a minimum of 30 days before the cabinet is scheduled to be installed in the field. The vendor is responsible for coordinating with the project construction contractor to determine the scheduled cabinet installation date. Cabinets shall be completed, delivered, and accepted within 50 calendar days after the county engineer approves the procurement item list.

If the county makes a modification to any cabinet order before the entire cabinet is completely built in the vendor's shop, the delivery time does not change. If the county accepts a vendor requested cabinet order or other modification at any time, the delivery time does not change. All cabinet modifications will be made without additional cost to the county, except if an additional equipment item is added at the county's request and the additional item is not to remedy any contractor or vendor error.

The contractor shall deliver the fully wired and equipped cabinets to the intersection where the cabinet will be installed, or other site as designated by the county or the project construction contractor. The contractor is responsible for arranging the unloading of the cabinet.

When the county exercises its right to test a cabinet as described in the Acceptance Testing section of this specification, deliver the cabinet to the location specified by the county engineer. When the testing is complete, pick up the cabinet from the shop within three business days of notification.

The contractor is notified that delivery times and schedules may be changed or delayed at any time for any reason. The contractor may be required to store completed cabinets at their facility for extended periods of time.

L Acceptance Testing

Complete on-site traffic signal acceptance testing in the presence of the county. The acceptance testing will occur after the signal cabinet is fully installed at the project intersection and before the traffic signal is turned on. The construction contractor and the county will determine the time for the acceptance testing. In addition to the cabinet as specified in this specification, add-on accessory items, traffic signal interconnect, system communication, and closed loop system operation are included in the acceptance testing.

Provide an IMSA certified Traffic Signal Bench Technician, Level II or an IMSA certified Traffic Signal Field Technician, Level II with a minimum of three years' experience in construction and operation of traffic signal cabinets similar to the cabinets specified in this specification. Alternatively, provide a technician or electrician with a minimum of three years' experience in construction and operation of traffic signal cabinets similar to the cabinets specified in this specification. The technician or electrician shall be on-site during the entire acceptance testing, and shall be capable and equipped to make in-field revisions / repairs to the signal cabinet and controller to conform to this specification.

Upon successful completion of the acceptance testing as determined by the county, a 30-day conditional acceptance of the signal cabinet will be provided to the contractor. Should the cabinet within the 30-day conditional acceptance period fail to perform in any way as determined by the county, the contractor shall repair the cabinet to bring it into conformance with this specification and the acceptance testing shall be repeated. Repair times shall conform to the warranty service response times in this specification. The acceptance testing shall be repeated. Upon successful completion of the retesting, a new 30-day conditional acceptance period shall begin. After the signal cabinet runs 30 days

without failure, the cabinet will be fully accepted by the county. The contractor will be allowed up to two 30-day conditional acceptance periods. If the cabinet fails during the second 30-day period, an entirely new cabinet shall be furnished and installed in the field by the contractor at no cost to the county and a new acceptance testing procedure shall begin. Cabinet replacement times shall conform to the warranty service response times in this specification. The original cabinet becomes the property of the contractor.

The county reserves the right to perform its own tests on the traffic signal cabinet at any time using the county's control equipment. Should an individual traffic signal cabinet be found to not meet the requirements of these specifications, the contractor shall pick up the traffic signal cabinet from the county or from the field, perform at their shop repairs / revisions as necessary to bring the traffic signal cabinet into conformance with these specifications, and deliver the repaired / revised traffic signal cabinet back to the designated location, all at no additional cost to the county.

M Certification

Provide a written certification with the cabinet delivery that the equipment meets the requirements of the plans and specifications and will fully run the sequence of operation and the signal timing, including closed loop system operation if applicable. The certification shall be on the contractor's company letterhead, shall be addressed to both the department and the construction contractor, and shall be signed by a company officer authorized to legally obligate the company.

N Measurement

The department will measure Traffic Signal Controller and Cabinet Fully Actuated 8-Phase as each individual unit, acceptably completed.

O Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.483	Traffic Signal Controller and Cabinet Fully Actuated 8-Phase	Each

Payment is full compensation for furnishing and installing a complete traffic signal cabinet, including the signal controller and conflict monitor together with cabinet, all required control units, all necessary wiring, switches, and fittings to assure that the controller will perform the functions required in the plans.

70. Luminaire Arms Steel 15-FT, Item SPV.0060.484.

A Description

Work under this item consists of furnishing and installing steel luminaire arms.

B Materials

Design support structures conforming to the minimum wall thickness the plan details show and to AASHTO design and fabrication standards for structural supports for highway

signs, luminaries, and traffic signals. Use a design life of 50 years. Design to withstand a 3 second gust wind speed of 90 mph (145 km/h). Do not use the methods of Appendix C of those AASHTO standards.

Use Category III criteria for Type 9 and Type 10 Poles. Use Category II criteria for Type 12 and Type 13 Poles.

For structures requiring a fatigue analysis, use 45 mph (72 km/h) for truck-induced gusts.

Base the designs on the completed maximum loading configuration the standard detail drawing shows. Along with the materials list, submit a certificate of compliance certifying that the arms as furnished conform to the above structural performance requirements. Ensure that the certificate of compliance is on the manufacturer's letterhead, signed by an authorized company officer, and notarized. Send a copy of the certificate and a copy of the luminaire arm shop drawings to the department electrical engineer.

Furnish luminaire arms conforming to the following:

- Consist of zinc coated steel round or oval members.
- Have a mounting device welded to the pole end of the luminaire arm that allows the attachment of the arm to a pole as the plans show.
- Have stiffeners or gussets if required between the arm tube and the arm mounting device to provide adequate strength to resist side loads.
- Have a clean, uniform natural finish. No paint or other corrosion preventive maintenance coating is required.

After welding and before zinc coating, clean exterior surfaces of each arm free of all loose rust and mill scale, dirt, oil or grease, and other foreign substances.

Apply zinc coating as specified for sign bridge components in standard spec 641.2.8. Ensure that the zinc coating is tight, free from rough areas or slag, and presents a uniform appearance.

Furnish Luminaire Arms Steel 15-FT for the CTH G/CTH BT intersection with a factory applied black finish.

After manufacturing is complete, clean the exterior surfaces of each pole free of all loose scale, dirt, oil, or grease, and other foreign substances.

C Construction

Construct according to standard spec 657.3.

D Measurement

The department will measure Luminaire Arms Steel 15-FT as each individual arm, 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.0060.484	Luminaire Arms Steel 15-FT	Each

Payment is full compensation for providing and installing all materials, including all hardware, factory applied black finish, fittings, mounting clamps, shims if required and attachments necessary to completely install arms.

71. Storm Sewer Pipe PVC 8-Inch, Item SPV.0090.100.

A Description
The special provision describes constructing PVC storm sewer as shown on the plans, in accordance to the pertinent requirements of standard spec 607 and as hereinafter provided.

B Materials
Furnish Polyvinyl Chloride (PVC) pipe with rubber gasket joints conforming to ASTM D-3034 with wall thickness SDR-26.

Crushed stone bedding and cover material shall conform to the requirements for Coarse Aggregate Size No. 1 of standard spec 301.

C Construction
Crushed stone bedding and cover material shall extend from four inches below the pipe to one foot above the top of the pipe.

D Measurement
The department will measure Storm Sewer Pipe PVC 8-Inch by the linear foot, measured along the centerline of the pipe, 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.0090.100	Storm Sewer Pipe PVC 8-Inch	LF

Payment is full compensation for providing and installing all materials including bedding and cover material; for furnishing all excavation, shaping, sheeting and shoring, backfilling, compacting, disposing of surplus excavated material. Grading and shaping required at the outfall of the pipe to match existing conditions is incidental.

72. Pedestrian Safety Fence, Item SPV.0090.225.

A Description
This special provision describes providing a pedestrian safety fence.

B Materials

Furnish notched commercially available metal "T" or "U" shaped fence posts.

Furnish construction grade 2 x 4 dimensional lumber.

Furnish fence fabric meeting the following requirements.

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1 inch min to 3 inch max
Resin/Construction:	High density polyethylene mesh
Service Temperature:	-60° F to 200° (ASTM D648)
Tensile Yield:	Avg. 2000 lb per 4 ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4 ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

C Construction

Construct wooden frames as the plans show using nails or screws as fasteners.

Secure fence fabric to frame with staples. Overlap fence fabric rolls at a vertical member of the frame.

Drive fence posts to the depth shown in the plans. Provide a post for each vertical member of the frame.

If the fence is placed on a surface which prevents fence posts from being driven in the ground, the fence may be braced using the 'Alternative Installation for Hard Surfaces' shown in the plans.

Secure frame to fence posts as shown in the plans, with the fence fabric facing away from the pedestrian facility.

D Measurement

The department will measure Pedestrian Safety Fence by the linear foot acceptably completed, measured along the base of the fence.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.225	Pedestrian Safety Fence	LF

Payment is full compensation for providing the fence, maintaining the fence, and removing and disposing of the fence at staging revisions or project completion.

73. Removing Longitudinal Pavement Markings Water Blasting, Item SPV.0090.226.

A Description

This special provision describes removing pavement markings using high pressurized water spray from locations shown on the plans or as the engineer directs. Conform to standard specs 646 and 647 as modified in this special provision.

B Materials

Provide necessary materials to remove the marking completely.

C Construction

Remove pavement marking using a high pressurized water spray with a vacuum recovery system to provide a clean, dry surface, without the use of a secondary cleanup process when pavement or ambient air temperature is 36 degrees F and rising. Remove all markings in their entirety. Provide equipment with a storage system that contains wastewater and debris. Control blast head at all times.

Obtain approval from engineer to perform alternative removal process when either restricted from using water blasting or water blasting alone was unsuccessful. Grind markings off only if water blasting does not achieve full removal. Obtain engineer approval of the removal.

D Measurement

The department will measure Removing Pavement Markings Water Blasting by the linear foot for longitudinal pavement markings or as each individual arrow, symbol or word for special markings acceptably completed. The department will count removing an RXR symbol as three individual symbols.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.226	Removing Longitudinal Pavement Markings Water Blasting	LF

Payment is full compensation for removal; and for disposal of residue.

74. Concrete Pavement Joint Layout, Item SPV.0105.054.

A Description

This special provision describes designing the joint layout and staking the location of all joints on the project, including mainline, ramps and intersections (traditional and roundabouts) to accommodate the concrete paving operation.

B (Vacant)

C Construction

Design the joint layout and stake the location of all joints on the project, including mainline, ramps and intersections (traditional and roundabouts), to accommodate the concrete paving operation. Plan and set all points necessary to establish the horizontal position of the transverse and longitudinal joints in the concrete pavement in accordance to the plans, the American Concrete Pavement Association Intersection Joint Layout Guidelines, and as directed by the engineer. Establish the joint layout in a manner to best-fit field conditions, construction staging, the plan, and as directed by the engineer.

D Measurement

The department will measure Concrete Pavement Joint Layout, completed in accordance to the contract and accepted, as a single complete lump sum unit of work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.054	Concrete Pavement Joint Layout	LS

Payment is full compensation for designing the joint layout on the mainline, ramps and all traditional and roundabout intersections; for completing all surveying work necessary to locate all transverse and longitudinal joints; and for making adjustments to match field conditions and construction staging.

75. Survey Project 5966-00-72, Item SPV.0105.055; Project 5966-00-73, Item SPV.0105.056; Project 5966-10-70, Item SPV.0105.057; Project 5966-10-71, Item SPV.0105.058.

A Description

Perform work conforming to standard spec 105.6 and 650.

Standard specs 105.6 and 650 are modified to define the requirements for construction staking for this contract.

Add the following to standard spec 105.6.1:

Horizontal and vertical control points, provided by the department, are generally at 1/2-mile intervals for horizontal control and at 1/4 intervals for vertical control. Control points will be provided in a hard copy and ASCII electronic format.

Replace standard spec 105.6.2 with the following:

The department will not perform any construction staking for this contract. The contractor shall perform all survey required to layout and construct the work under this contract, subject to engineer's approval.

The survey includes establishing horizontal and vertical position for furnishing all aspects of construction including but not limited to storm sewer, subgrade, base, curb, gutter, curb and gutter, pipe culverts, structure layout, pavement, barriers (temporary and permanent), electrical installations, supplemental control, slope stakes, ponds, ITS, FTMS, ramp gates, parking lots, utilities, landscaping elements, irrigation system layout, installation of community sensitive design elements, traffic control items, fencing, etc.

The department may choose to perform quality assurance survey during construction. This quality assurance survey does not relieve the contractor of the responsibility for furnishing all survey work required under this contract.

Delete standard spec 650.1.

B (Vacant)

C Construction

Survey required under this item shall be in accordance to all pertinent requirements of standard spec 650 and shall include all other miscellaneous survey required to layout and construct all work under this contract.

D Measurement

The department will measure Survey Project (ID) 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.0105.055	Survey Project 5966-00-72	LS
SPV.0105.056	Survey Project 5966-00-73	LS
SPV.0105.057	Survey Project 5966-10-70	LS
SPV.0105.058	Survey Project 5966-10-71	LS

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.

76. Connect to Existing Drain Tile with Cleanout, Item SPV.0105.100.

A Description
The special provision describes connecting to the existing 8-inch drain tile with a cleanout assembly as shown on the plans, and in accordance to the pertinent requirements of standard spec 607 and as hereinafter provided.

B Materials
Furnish Polyvinyl Chloride (PVC) pipe, wye, bend and plug for cleanout and cleanout sleeve with rubber gasket joints conforming to ASTM D-3034 with wall thickness SDR-26.

Crushed stone bedding shall conform to the requirements for Coarse Aggregate Size No. 1 of standard spec 301.

C Construction
Perform work in accordance to standard spec 607.3.

D Measurement
The department will measure Connect to Existing Drain Tile with Cleanout 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.0105.100	Connect to Existing Drain Tile with Cleanout	LS

Payment is full compensation for providing and installing all materials including pipe, fittings, cap, and bedding stone; for furnishing all excavation, shaping, sheeting and shoring, backfilling, compacting, disposing of surplus excavated material.

77. Remove Traffic Signals STH 11 and CTH G, Item SPV.0105.450; USH 51 and Cranston Road, Item SPV.0105.451.

A Description
This special provision describes removing existing traffic signals at the intersections of STH 11 and CTH G and USH 51 and Cranston Road 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 Dena Dramm of WisDOT SW Region at (608) 246-5360 at least three 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, transformer bases, signal heads, mast arms, luminaries, wiring/cabling, and traffic signal mounting devices and dispose of properly.

At the STH 11 and CTH G intersection, the existing cabinet may be used for temporary signal. Once permanent signal is operational 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.

At the USH 51 and Cranston Road intersection, traffic signals shall be maintained during construction. A maximum of one signal face for each approach may be out of service at any one time. Each signal face shall be in operation at all times work is not being actively performed on that face, including overnight.

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.0105.450	Remove Traffic Signals STH 11 and CTH G	LS
SPV.0105.451	Remove Traffic Signals USH 51 and Cranston Road	LS

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

78. Remove Traffic Signals, CTH G and CTH BT, Item SPV.0105.452.

A Description

This special provision describes removing the existing traffic signals at the intersection CTH G and CTH BT 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 Ben Coopman, Director of Public Works/Highway Commissioner with Rock County at 608-757-5450 and Jason Dupuis of the City of Beloit at (608) 364-6735 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 County assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Any equipment not identified as damaged or not working, prior to removal, will be replaced by the contractor at no cost to the department.

Remove all standards and poles per plan from their concrete footings and disassemble out of traffic. Remove the transformer bases from each pole. Remove the signal heads, mast arms, luminaires, wiring/cabling, and traffic signal mounting devices from each signal standard, arm or pole. Ensure that all access hand hole doors and all associated hardware remain intact. Dispose of the underground signal cable, internal wires and street lighting cable off the state right-of-way.

Deliver the traffic signal controller to Jason Dupuis at 2400 Springbrook Court, Beloit, WI, 53511. Contact Jason Dupuis at (608) 634-6735 at least five working days prior to delivery to make arrangements.

Deliver all other materials to the Rock County's Highway Division at 3715 Newville Road, Janesville, WI. Contact Ben Coopman at (608) 757-5450 at least five working days prior to delivery to make arrangements.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.452	Remove Traffic Signals, CTH G and CTH BT	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.

79. Temporary Non-Intrusive Vehicle Detection System STH 11 and CTH G, Item SPV.0105.454.

A Description

This special provision describes furnishing, installing, and maintaining temporary non-intrusive vehicle detection systems at the intersection of STH 11 and CTH G.

The desired temporary vehicle detection zones are as shown on the plans.

B Materials

With prior approval of the engineer and the department's Electrical Field and Traffic Signal Design Units, select the non-intrusive vehicle detection technology best suited for the site conditions and the anticipated construction work zones and activities. The engineer reserves the right to request a demonstration of any or all temporary vehicle detection technologies prior to said approval. Vehicle detection technologies considered shall include, but are not necessarily limited to, microwave detection and video detection. Damage to new pavement for any temporary vehicle detection equipment shall not be allowed.

Provide all necessary equipment for the approved temporary non-intrusive vehicle detection system.

C Construction

The temporary non-intrusive vehicle detection system, as shown in the temporary traffic signal plans or as directed by the engineer, shall be complete in place, tested, and in full operation during each stage and sub-stage of construction.

Install the temporary non-intrusive vehicle detection system as shown in the plans and according to the manufacturer's recommendations. Determine a suitable location for the temporary vehicle detection sensors for each stage and sub-stage of construction. Relocate the temporary vehicle detection sensor to a suitable location if construction activities and/or construction staging changes impede the sensor operation.

All cables associated with the temporary non-intrusive vehicle detection system shall be routed to the cabinet. Each lead shall be appropriately marked as to which street or avenue and traffic signal phase it is associated.

Maintain all temporary non-intrusive vehicle detection zones as the plans show or as the engineer directs. The temporary non-intrusive vehicle detection zones shall be set near the vicinity and within the approximate distance from the stop bar as shown on the plans. Check temporary vehicle detection zones on a bi-weekly basis and at the opening of each stage of temporary traffic signal operation to ensure that they are working and are 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 that the temporary vehicular 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 Non-Intrusive Vehicle Detection System, STH 11 and CTH G, as a single complete lump sum unit of work per 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.0105.454	Temporary Non-Intrusive Vehicle Detection System, STH 11 and CTH G	LS

Payment is full compensation for demonstrating and selecting the temporary vehicle detector system; for furnishing and installing all required equipment, cables, materials, and supplies; for checking and/or adjusting the temporary detection zones on a bi-weekly basis; for maintaining and changing the temporary detection zones to match the plans, traffic control, and construction staging; for relocating the temporary detection sensors due to construction activities, if required; for periodically cleaning all temporary vehicle detector equipment; for removing the temporary vehicle detector system; and for cleaning up and properly disposing of waste.

80. Remove Loop Detector Wire and Lead-in Cable, STH 11 and CTH G, Item SPV.0105.455; CTH G and Huebbe Pkwy, Item SPV.0105.456; CTH G and CTH BT, Item SPV.0105.465.

A Description

This special provision describes removing loop detector wire and lead-in cable at the STH 11 and CTH G, CTH G and Huebbe Pkwy, and CTH G and CTH BT intersections. Removal will be in accordance to section 204, as shown in the plans, and as hereinafter provided.

B (Vacant)

C Construction

At the STH 11 and CTH G intersection, notify Dena Dramm of WisDOT SW Region at (608) 246-5360 at least three working days prior to the removal of the loop detector wire and lead-in cable.

At the CTH G and Huebbe Pkwy intersection, notify Jason Dupuis of the City of Beloit at (608) 364-6735 at least three working days prior to the removal of the loop detector wire and lead-in cable.

At the CTH G and CTH BT intersection, notify Ben Coopman of Rock County at (608) 757-5450 at least three 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 (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.0105.455	Remove Loop Detector Wire and Lead-in Cable, STH 11 and CTH G	LS
SPV.0105.456	Remove Loop Detector Wire and Lead-in Cable, CTH G and Huebbe Pkwy	LS
SPV.0105.465	Remove Loop Detector Wire and Lead-in Cable, CTH G and CTH BT	LS

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

81. Modify Video Detection System CTH G and Huebbe Pkwy, Item SPV.105.457.

A Description

This specification describes the modification of the existing video detection system to accommodate the new video camera and equipment at the intersection of CTH G and Huebbe Pkwy.

B Materials

B.1 Existing Hardware

The existing video detection system includes two cameras and an Iteris Vantage video detection processor (VDP).

B.2 VDP Hardware
Provide a new Iteris Vantage VDP card that includes at least four BNC video input connections suitable to be installed in the existing rack in the traffic signal cabinet and is compatible with the existing video detection system at the intersection.

B.3 Camera
Furnish an Iteris camera that is the same model or newer version of the existing video detection equipment at the intersection and is compatible with the existing VDP.

The video cameras used for traffic detection shall be furnished by the VDP supplier and shall be qualified by the supplier to ensure proper system operation.

B.4 VDP Cable
The coaxial cable to be used between the camera and the VDP in the traffic cabinet shall be Belden 8281 or a 75 ohm, precision video cable with 20 gauge solid bare copper conductor (9.9 ohms/M), solid polyethylene insulating dielectric, 98% (min) tinned copper double-braided shield and black polyethylene outer covering. The signal attenuation shall not exceed 0.78 dB per 100 feet at 10 MHz. Nominal outside diameter is 0.304 inches. The coaxial cable shall be a continuous unbroken run from the camera to the VDP. This cable shall be suitable for installation in conduit or overhead with appropriate span wire. 75-ohm BNC plug connectors shall be used at both the Camera and Cabinet ends. The supplier of the video detection system shall approve the coaxial cable, BNC connector, and crimping tool, and the manufacturer's instructions shall be followed to ensure proper connection.

The power cabling shall be 16 AWG three conductor cable. The cabling shall comply with the National Electric Code, as well as local electrical codes.

Provide all other materials needed for mounting camera, making connections in the signal cabinet, and making the system operational.

C Construction
C.1 Installation
Salvage the existing VDP card and return to the city. Contact Jason Dupuis at (608) 364-6735 at least three workings days prior to the delivery to make arrangements.

Install the additional video detection system equipment by supplier factory certified installers and as recommended by the supplier and documented in installation materials provided by the supplier. Make the video detection system fully operational with the new and existing equipment in accordance to the sequence of operations in the plans and the signal timing plans. Demonstrate the system to the engineer and the city.

Mount the camera on the side of the streetlight pole and as high as possible on the pole, anticipated to be 29.5 feet above the ground. The camera shall provide reliable detection of approaching vehicles at a distance up to 350 feet. Camera placement and field of view

(FOV) shall be unobstructed and as noted in the installation documentation provided by the supplier.

C.2 Warranty

The supplier shall provide a full two-year warranty on all new video detection system equipment. For any component that has a standard manufacturer's warranty longer than two years, provide the longer warranty.

During the warranty period, technical support shall be available from the supplier via telephone within 4 hours of the time a call is made by a user, and this support shall be available from factory-certified personnel or factory-certified installers. During the warranty period, updates to VDP software shall be available from the supplier without charge.

C.3 Maintenance and Support

The supplier shall maintain an adequate inventory of parts to support maintenance and repair of the new video detection system equipment. These parts shall be available for delivery within 30 days of placement of an acceptable order at the supplier's then current pricing and terms of sale for said parts.

The supplier shall maintain an ongoing program of technical support for the new video detection system equipment. This technical support shall be available via telephone, or via personnel sent to the installation site upon placement of an acceptable order at the supplier's then current pricing and terms of sale for on-site technical support services.

D Measurement

The department will measure Modify Video Detection System CTH G and Huebbe Pkwy 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 items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.457	Modify Video Detection System CTH G and Huebbe Pkwy	LS

Payment is full compensation for furnishing and installing all equipment and cable to provide a complete and fully operational video detection system; training; providing and fulfilling the warranty and technical support; and for properly disposing of surplus materials.

82. Electrical System Grounding CTH G and Huebbe Pkwy, Item SPV.0105.458.

A Description

This special provision describes furnishing and installing grounding wire, reestablishing all equipment grounding conductors and pull box bonding, and establishing new grounding connections at new or adjusted traffic signal equipment at the CTH G and Huebbe Pkwy intersection in accordance to standard specs 651, 653, and 655.

B Materials

Furnish equipment grounding conductors as specified in standard spec 655.2.5 and any other materials necessary to ground all salvaged traffic signal equipment.

C Construction

Incorporate all salvaged/reinstalled traffic signal equipment into the existing grounded system. Reestablish existing equipment grounding conductors for all salvaged and reinstalled traffic signal equipment. Reconnect existing pull box bonding wires. All work to be completed as specified in standard spec 655.3 and as detailed in SDD Pull Box.

D Measurement

The department will measure Electrical System Grounding CTH G and Huebbe Pkwy as a single lump sum unit 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.0105.458	Electrical System Grounding CTH G and Huebbe Pkwy	LS

Payment is full compensation for furnishing and installing wire, reestablishing / establishing equipment grounding and pull box bonding, and for properly disposing of surplus materials to complete the contract work.

83. Salvage and Reinstall Traffic Signal Equipment CTH G and Huebbe Pkwy, Item SPV.0105.459; USH 51 and Cranston Road, Item SPV.0105.460.

A Description

This special provision describes salvaging and reinstalling existing traffic signal equipment at the intersections of CTH G and Huebbe Pkwy and USH 51 and Cranston Road. Specific removal items are noted in the plan.

B (Vacant)

C Construction

Salvage traffic signal standards and poles per plan from their concrete footing and disassemble out of traffic. Remove the pedestal bases and transformer bases from each pole. Remove the signal heads, mast arms, wiring / cabling, and traffic signal mounting devices from signal standard, arm, or pole per plan. Ensure that access handhole doors and hardware remain intact. Make a reasonable effort to inspect salvaged equipment for damage or defects.

If damage or defects discovered, contact Jason Dupuis at the City of Beloit at (608) 364-6735 for the CTH G and Huebbe Pkwy intersection or contact Dena Dramm of WisDOT SW Region at (608) 246-5360 for the USH 51 and Cranston Road intersection.

Remove all signal cable and wire from the conduit system except where noted on the plan. Dispose of wire and cable.

Reinstall the salvaged traffic signal equipment at the new locations shown on the plan and in accordance to standard specs 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3.

Traffic signals shall be maintained during construction. A maximum of one signal face for each approach may be out of service at any one time. Each signal face shall be in operation at all times work is not being actively performed on that face, including overnight.

D Measurement

The department will measure Salvage and Reinstall Traffic Signal Equipment CTH G and Huebbe Pkwy and USH 51 and Cranston Road as a single lump sum unit of work, in place and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.459	Salvage and Reinstall Traffic Signal Equipment CTH G and Huebbe Pkwy	LS
SPV.0105.460	Salvage and Reinstall Traffic Signal Equipment USH 51 and Cranston Road	LS

Payment is full compensation for removing, disassembling traffic signals, scrapping of some materials, disposing of scrap material, salvaging the equipment, and reinstalling the signal equipment at the new locations specified in the plan.

84. Modify Traffic Signal Cabinet CTH G and Huebbe Pkwy, Item SPV.0105.461.

A Description

This special provision describes the modification of the traffic signal cabinet to accommodate new traffic signal equipment and revised traffic signal operations at the intersection of CTH G and Huebbe Pkwy. Complete all work in conformance with standard spec 651.

B Materials

Furnish all materials and equipment required to operate the intersection traffic signal as shown on the plans and in the sequence of operations, including, but not limited to, circuit breakers, load switches, detector amplifiers, surge protectors, varistors, and other cabinet equipment. All equipment shall be new.

C Construction

Install the new equipment and modify the traffic signal cabinet to accommodate new signal equipment as shown on the plan and in accordance to standard spec 651. Program the traffic signal controller and conflict monitor to accommodate the updated traffic signal timing and phasing as shown on the plan and in the traffic signal timing plan. Install the revised signal timing plan. The region signal engineer will provide the timing plan.

Make the proposed signal system complete from the source of supply to the most remote unit. Test all new and reconnected grounded conductors, equipment grounding conductors, and ungrounded conductors as specified in standard spec 651.3.3. Test all loop detectors and preemption. The completed cabinet shall be fully functional to operate all the existing and new traffic signal equipment, lighting equipment, and the proposed traffic signal timing plan.

Prepare three sets of cabinet wiring diagrams showing the entire cabinet. Place two cabinet wiring diagram sets in a heavy duty clear plastic envelope mounted on the inside of the front cabinet door, and provide one cabinet wiring diagram set to the engineer.

Demonstrate the cabinet operation to the engineer. Notify Jason Dupuis of the City of Beloit at (608) 364-6735 for the CTH G and Huebbe Pkwy intersection at least five working days in advance of the proposed review time to arrange the demonstration.

D Measurement

The department will measure Modify 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.0105.461	Modify Traffic Signal Cabinet CTH G and Huebbe Pkwy	LS

Payment is full compensation for furnishing and installing cabinet materials and equipment; modifying the traffic signal cabinet and controller; furnishing and installing miscellaneous items such as, but not limited to, wire nuts, splice kits, connectors, tape, insulating varnish, and ground lug fasteners; cleaning up and disposing of all waste; testing the cabinet; and demonstrating the cabinet.

85. Transport and Install State Furnished Non-Intrusive Detection System 51 and Cranston, Item SPV.0105.462.

A Description

This special provision describes transporting and installing a department furnished microwave or video detection system for use at the USH 51 and Cranston Road intersection.

B Materials

Notify Dena Dramm of WisDOT SW Region at (608) 246-5360 at least five working days prior to material pick-up to make arrangements for picking up the department furnished materials for the non-intrusive vehicle detection system, including system detectors and cables. Furnish all remaining hardware, fasteners, and wiring connections as incidental to this item.

C Construction

Coordinate directly with the Department's assigned project electrician for all activities associated with this bid item. The department will provide contact information for the designated project electrician at the preconstruction meeting. Contact the department at least five working days prior to the scheduled installation of the detection system and all subsequent changes in operation. Contact Dena Dramm, Southwest Region Signal Operations at (608) 246-5360 in advance of the preconstruction meeting with any questions regarding this bid item.

The Department's assigned project electrician will oversee the installation. All modifications to the existing traffic signal cabinet, wiring terminations, programming changes and testing procedures will be provided by the department.

Install the non-intrusive detector/sensor 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). Install the traffic signal power cable to run continuously (without splices) from the traffic signal cabinet to the handhold or base. Leave 10 feet of cable in each traffic signal cabinet and pull box. Install the detector/sensor manufacturer's connector cable whip from the detector/sensor to the handhole or base.

D Measurement
The department will measure Transport and Install State Furnished Non-Intrusive Detection System 51 and Cranston 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.0105.462	Transport and Install State Furnished Non-Intrusive Detection System 51 and Cranston	LS

Payment is full compensation for transporting and installing the complete installation; and for furnishing all incidentals necessary to complete the work.

86. Interim Traffic Signal Operation, CTH G and CTH BT, Item SPV.0105.466.

A Description
This special provision describes placing portions of the newly constructed traffic signals at the intersection of CTH G and CTH BT in an inactive mode to allow the intersection to function as a 'T-intersection' utilizing the new traffic signals.

B (Vacant)

C Construction
As a part of SPV.0060.483, the contractor shall complete on-site traffic signal acceptance testing in the presence of the county. After all testing is accepted by the county, the contractor shall de-energize and cover traffic signal faces, and place in-ground loop detectors in inactive mode that would be intended to serve traffic traveling on the east leg of the intersection of CTH G and CTH BT.

The following signal faces will be de-energized and bagged as a part of this work:

- Traffic signal faces 9, 10, 16, 17, 18, 19 and 20

The following loop detectors will be placed in an inactive mode as a part of this work:

- Loop detector 42, 43, 51, 52, 81, 82, 83, 84 and 85.

Program the traffic signal controller and conflict monitor to accommodate the interim traffic signal timing and phasing as shown on the interim traffic signal plan and in the interim traffic signal timing plan. Install the revised signal timing plan.

Demonstrate the cabinet operation to the county.

Continued maintenance of the traffic signals will be handled by Rock County.

D Measurement
The department will measure Interim Traffic Signal Operation (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.0105.466	Interim Traffic Signal Operation, CTH G and CTH BT	LS

Payment is full compensation for modifying the traffic signal cabinet and controller; bagging and de-energizing the traffic signals faces as shown in the interim traffic signal plan, placing some loop detectors in inactive mode, testing the cabinet; and demonstrating the cabinet functions properly under the interim traffic signal setup.

87. Concrete Corrugated Median Flush, Item SPV.0165.001.

A Description
This special provision describes concrete corrugated median flush in accordance with the standard specifications, as shown in the plans and as hereinafter provided.

B Materials
Furnish concrete corrugated median flush that is according to the pertinent requirements of standard spec 620.

C Construction
Conform to the requirements of standard spec 620.

D Measurement
The department will measure Concrete Corrugated Median Flush in accordance with standard spec 620.4.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.001	Concrete Corrugated Median Flush	SF

Payment is full compensation in with subsection 620.5 of the standard specifications.

88. Concrete Sidewalk 10-Inch, Item SPV.0165.051.

A Description
This special provision describes concrete sidewalk 10-inch in accordance to the standard specifications, as shown in the plans and as hereinafter provided.

B Materials
Furnish concrete sidewalk 10-inch that is according to the pertinent requirements of standard spec 602.

C Construction
Conform to the requirements of standard spec 602.

D Measurement
The department will measure Concrete Sidewalk 10-Inch in accordance to standard spec 602.4.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.051	Concrete Sidewalk 10-Inch	SF

Payment is full compensation in with standard spec 602.5.

89. QMP Base Aggregate Dense 1 1/4-inch Compaction, Item SPV.0195.051.

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.

Supplement standard spec 305.3.2.2 with the following:

(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. (4) 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 seven 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 standard spec 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 seven 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

(1) 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.

(2) Passing CA test results in accordance to section C.2.4.2, will reduce the limits of lot investigations and/or corrective actions.

(3) 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.

(4) 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.

(5) 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 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.

(6) 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.

(7) 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.

(8) 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.

(9) 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.

(10) 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

(1) 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

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.051	QMP Base Aggregate Dense 1 1/4-inch Compaction	TON

(2) 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.

ADDITIONAL SPECIAL PROVISION 3
DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

1. Description

General

a. The disadvantaged business enterprise (DBE) requirements of 49 CFR Part 26 apply to this contract. The department's DBE goal is shown on the cover of the bidding proposal. The contractor can meet the specified contract DBE goal by procuring services or materials from a DBE or by subcontracting work to a DBE. The department calculates the DBE participation as the dollar value of DBE participation included in the bid expressed as a percentage of the total contract bid amount.

b. Under the contract, the contractor agrees to provide the assistance to participating DBE's in the following areas:

   i. Produce accurate and complete quotes.
   ii. Understand highway plans applicable to their work.
   iii. Understand specifications and contract requirements applicable to their work.
   iv. Understand contracting reporting requirements.

c. The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.

d. For information on the disadvantaged business program, visit the department's Civil Rights and Compliance Section website at:

   http://www.dot.wisconsin.gov/business/engrserv/dbe-main.htm

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 at

http://app.mylcm.com/wisdot/Reports/WisDotUCPDirectory.aspx

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 at

http://www.dot.wisconsin.gov/business/engrserv/docs/dbe-trucking-notice.pdf

11. Manufacturers and Suppliers

The department counts material and supplies a DBE provides under the contract. The department will give full credit toward the DBE goal if the DBE is a manufacturer of those materials or supplies. The department will give 60 percent credit toward the DBE goal if the DBE is merely a supplier of those materials or supplies. It is the bidder's responsibility to find out if the DBE is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506.

12. DBE Prime

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

13. Joint Venture

If a DBE performs as a participant in a joint venture, the department will only count that portion of the total dollar value of the contract equal to that portion of the work that the DBE performs with its own forces.

14. Mentor Protégé

a. If a DBE performs as a participant in a mentor protégé agreement, the department will credit the portion of the work performed by the DBE protégé firm

b. On every other project that the mentor protégé team identifies itself on.

c. For no more than one half of the total contracted DBE goal on any WisDOT project.

15. DBE Replacement

In the event a Prime Contractor needs to replace a DBE firm originally listed on the approved DBE Commitment Form DT1506, the Prime Contractor must comply with the department's DBE Replacement Policy located on the DBE page on the following web site:
http://www.dot.wi.gov/business/dbe/docs/policyreplacingdbe.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 PROVISIONS 5

Fuel Cost Adjustment

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.0100	Backfill Granular	CY	0.23
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is $2.90 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \left(\frac{CFI}{BFI} - 1 \right) x\ Q\ x\ BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

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 January 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 pavement performance. 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 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 January 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.
- 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 January 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.

(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 section 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.

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.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

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

B. Costs for conforming to this special provision are incidental to the contract.

ADDITIONAL SPECIAL PROVISION 9
Electronic Certified Payroll Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to submit certified payrolls electronically. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at: http://www.dot.wi.gov/business/civilrights/laborwages/index.htm

(2) Ensure that all tiers of subcontractors, as well as all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Tess Mulrooney at 608-267-4489 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator send several sample electronic files to Tess two months before a payroll needs to be submitted. Not every contractor's payroll system is capable of producing export files. For details, see pages 17-22 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at: http://www.dot.wi.gov/business/civilrights/laborwages/docs/crc-payroll-manual.pdf

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Nonsegregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Compliance with Governmentwide Suspension and Debarment Requirements
XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the 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.

DECEMBER 2013

BUY AMERICA PROVISION

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

http://roadwaystandards.dot.wi.gov/standards/cmm/cm-02-28.pdf#cm2-28.5

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

http://roadwaystandards.dot.wi.gov/standards/forms/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
II. Payroll Requirements
III. Postings at the Site of the Work
IV. Affidavits
V. Wage Rate Redistribution
VI. Additional Classifications

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

The schedule of "Minimum Wage Rates" attached hereto and made a part hereof furnishes the prevailing wage rates that have been determined pursuant to Section 103.50 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the various laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 103.50, Stats. If necessary to employ laborers, workers, mechanics or truck drivers whose classification is not listed on the schedule, they shall be paid at rates conformable to those listed for similar classifications. Apprentices shall be paid at rates not less than those prescribed in their state indenture contacts.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this in not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 103.50 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) the day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, eculid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

For those projects subject to the requirements of the Davis-Bacon Act, the Secretary of Labor will also have determined "Minimum Wage Rates" for work to be performed under the contract. These rates are, for all or most of the labor, worker, mechanic or truck driver classifications, identical to those established under Section 103.50 of the Wisconsin Statutes. In the event the rates are not identical, the higher of the two rates will govern.

II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 103.50 of the Wisconsin Statutes.

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.

b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)

c. A copy of the contractor's Equal Employment Opportunity Policy.

d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

IV. WAGE RATE REDISTRIBUTION

The amount specified as the hourly basic rate of pay and the amount(s) specified as the fringe benefit contribution(s), for all classes of laborers, workers, mechanics or truck drivers may be redistributed, when necessary, to conform to those specified in any applicable collective bargaining agreement, provided that both parties to such agreement

request and receive the approval for any such redistribution from both the Department of Transportation and the Department of Workforce Development prior to the implementation of such redistribution.

V. ADDITIONAL CLASSIFICATIONS

Any unlisted laborer or mechanic classification that is needed to perform work on this project, and is not included within the scope of any of the classifications listed in the application prevailing wage rate determination, may be added after award only if all of the following criteria have been met:

1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.

2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.

3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.

4. The unlisted classification must be commonly employed in the area where the project is located.

5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.

6. The request should be made prior to the actual performance of the work by the unlisted classification.

7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.

8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

The approved wage/fringe benefit package shall be paid to all laborers, workers, mechanics or truck drivers performing work within the scope of that performed by the unlisted classification, from the first day on which such work is performed. In the event that work is performed by the unlisted classification prior to approval, the wage/fringe benefit package to be paid for such work must be in conformance with the wage/fringe

benefit package approved for such work. Under this arrangement a retroactive adjustment in wages and/or fringe benefits may be required to be made to the affected laborers, workers, mechanics or truck drivers by the affected employer(s).

ANNUAL PREVAILING WAGE RATE DETERMINATION
FOR ALL STATE HIGHWAY PROJECTS
ROCK 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, 2014

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	32.06	17.30	49.36
Carpenter	30.48	16.00	46.48
Cement Finisher	33.51	16.13	49.64
Future Increase(s): Add $1.87 on 6/1/14; 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	43.47	8.66	52.13
Fence Erector	24.72	0.00	24.72
Ironworker	31.25	19.46	50.71
Line Constructor (Electrical)	38.42	12.68	51.10
Painter	21.87	11.37	33.24
Pavement Marking Operator	30.00	0.00	30.00
Piledriver	30.98	16.00	46.98
Roofer or Waterproofer	38.35	0.14	38.49
Teledata Technician or Installer	21.89	12.37	34.26
Tuckpointer, Caulker or Cleaner	35.25	13.18	48.43
Underwater Diver (Except on Great Lakes)	34.48	15.90	50.38
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	34.43	15.24	49.67
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	35.50	15.89	51.39
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.70	34.45

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
TRUCK DRIVERS			
Single Axle or Two Axle	34.22	19.90	54.12
Three or More Axle	24.52	17.77	42.29
Future Increase(s): Add $1.30/hr on 6/1/2014. 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	29.27	20.40	49.67
Future Increase(s): Add $1.75/hr on 6/1/14); Add $1.25/hr on 6/1/15); Add $1.30/hr on 6/1/16); Add $1.25/hr on 6/ 1/ 17. 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	23.31	17.13	40.44
Shadow or Pilot Vehicle	34.22	19.90	54.12
Truck Mechanic	23.31	17.13	40.44
LABORERS			
General Laborer	29.04	14.63	43.67
Future Increase(s): Add $1.60/hr on 6/1/2014. Premium Pay: Add $.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add $.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add $.20/hr for blaster and powderman; Add $.25/hr for bottomman; Add $.35/hr for line and grade specialist; Add $.45/hr for pipelayer. DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	24.36	14.81	39.17
Landscaper	29.32	14.63	43.95
Future Increase(s): Add $1.60/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	23.50	15.10	38.60
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.31	12.67	30.98
Railroad Track Laborer	22.75	0.00	22.75
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	36.72	20.40	57.12

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add $1.75/hr on 6/1/2014); 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. Future Increase(s): Add $1.75/hr on 6/1/2014); Add $1.25/hr on 6/1/2015); Add $1.30/hr on 6/1/2016); Add $1.25/hr on 6/ 1/ 2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.	36.22	20.40	56.62
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, VIbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane WIth a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle 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 $1.75/hr on 6/1/2014); 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.	35.72	20.40	56.12

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
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.	35.46	20.40	55.86
Future Increase(s): Add $1.75/hr on 6/1/2014); 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.	35.17	20.40	55.57
Future Increase(s): Add $1.75/hr on 6/1/2014); 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.	26.69	16.65	43.34

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin
GENERAL DECISION NUMBER: WI150010
DATE: January 16, 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	$29.04	14.53
Group 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	29.14	14.53
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man	29.19	14.53
Group 4: Line and Grade Specialist	29.39	14.53
Group 5: Blaster and Powderman	29.24	14.53
Group 6: Flagperson; Traffic Control	25.67	14.53

CLASSES OF LABORER AND MECHANICS

Bricklayer	32.14	18.25
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker (South of Edgerton and Milton)	34.34	25.72
Ironworker (Northern Area, Vicinity of Edgerton and Milton)	31.50	20.03
Cement Mason/Concrete Finisher	32.09	16.13
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
Painter, Brush	24.50	16.27
Painter, Spray, Structural Steel,Bridges	25.50	16.27
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.

SUPERSEDES DECISION WI20120010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin
GENERAL DECISION NUMBER: WI150010
DATE: January 16, 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: January 16, 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	31.10	24.95% + 10.41
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.

SCHEDULE OF ITEMS REVISED:

CONTRACT:	PROJECT(S):	FEDERAL ID(S):
20150414011	5966-00-72	N/A
	5966-00-73	WISC 2015179
	5966-10-70	N/A
	5966-10-71	N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SECTION 0001 Contract Items					
0010	201.0105 Clearing	96.000 STA		.		.
0020	201.0120 Clearing	607.000 ID		.		.
0030	201.0205 Grubbing	96.000 STA		.		.
0040	201.0220 Grubbing	619.000 ID		.		.
0050	203.0100 Removing Small Pipe Culverts	94.000 EACH		.		.
0060	203.0200 Removing Old Structure (station) 001. 138+74 'G'	LUMP	LUMP			.
0070	203.0200 Removing Old Structure (station) 002. 150+24 'G'	LUMP	LUMP			.
0080	203.0200 Removing Old Structure (station) 003. 233'G'+27 CL	LUMP	LUMP			.
0090	203.0200 Removing Old Structure (station) 004. 275'G'+45 RT	LUMP	LUMP			.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0100	203.0200 Removing Old Structure (station) 005. 280'G'+95 LT	LUMP	LUMP			.
0110	203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 001. 238'G'+21	LUMP	LUMP			.
0120	203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 002. 79'G'+51. 65	LUMP	LUMP			.
0130	204.0100 Removing Pavement	16,426.000 SY		.		.
0140	204.0120 Removing Asphaltic Surface Milling	705.000 SY		.		.
0150	204.0150 Removing Curb & Gutter	3,282.000 LF		.		.
0160	204.0155 Removing Concrete Sidewalk	732.000 SY		.		.
0170	204.0165 Removing Guardrail	222.000 LF		.		.
0180	204.0170 Removing Fence	12,157.000 LF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0190	204.0185 Removing Masonry	9.000 CY		.		.
0200	204.0195 Removing Concrete Bases	24.000 EACH		.		.
0210	204.0210 Removing Manholes	5.000 EACH		.		.
0220	204.0220 Removing Inlets	14.000 EACH		.		.
0230	204.0245 Removing Storm Sewer (size) 001. 12-Inch	184.000 LF		.		.
0240	204.0245 Removing Storm Sewer (size) 002. 18-Inch	40.000 LF		.		.
0250	204.0245 Removing Storm Sewer (size) 003. 36-Inch	928.000 LF		.		.
0260	204.0270 Abandoning Culvert Pipes	1.000 EACH		.		.
0270	204.9060.S Removing (item description) 001. Concrete Apron Endwalls	5.000 EACH		.		.
0280	205.0100 Excavation Common	308,247.000 CY		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0290	206.1000 Excavation for Structures Bridges (structure) 001. B-53-291	LUMP	LUMP			.
0300	206.2000 Excavation for Structures Culverts (structure) 001. C-53-8	LUMP	LUMP			.
0310	210.0100 Backfill Structure	740.000 CY		.		.
0320	213.0100 Finishing Roadway (project) 001. 5966-00-72	1.000 EACH		.		.
0330	213.0100 Finishing Roadway (project) 002. 5966-00-73	1.000 EACH		.		.
0340	213.0100 Finishing Roadway (project) 003. 5966-10-70	1.000 EACH		.		.
0350	213.0100 Finishing Roadway (project) 004. 5966-10-71	1.000 EACH		.		.
0360	305.0110 Base Aggregate Dense 3/4-Inch	8,947.000 TON		.		.
0370	305.0120 Base Aggregate Dense 1 1/4-Inch	133,340.000 TON		.		.
0380	305.0130 Base Aggregate Dense 3-Inch	150,151.000 TON		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0390	310.0110 Base Aggregate Open Graded	239.000 TON		.		.
0400	311.0115 Breaker Run	70.000 CY		.		.
0410	312.0110 Select Crushed Material	35,523.000 TON		.		.
0420	405.0100 Coloring Concrete Red	161.000 CY		.		.
0430	415.0085 Concrete Pavement 8 1/2-Inch	300.000 SY		.		.
0440	415.0100 Concrete Pavement 10-Inch	18,653.000 SY		.		.
0450	415.0210 Concrete Pavement Gaps	2.000 EACH		.		.
0460	415.0410 Concrete Pavement Approach Slab	122.000 SY		.		.
0470	415.1100 Concrete Pavement HES 10-Inch	1,179.000 SY		.		.
0480	415.6000.S Rout and Seal	2,090.000 LF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0490	416.0160 Concrete Driveway 6-Inch	840.000 SY		.		.
0500	416.0170 Concrete Driveway 7-Inch	1,193.000 SY		.		.
0510	416.0610 Drilled Tie Bars	2,257.000 EACH		.		.
0520	416.0620 Drilled Dowel Bars	66.000 EACH		.		.
0530	440.4410.S Incentive IRI Ride	13,800.000 DOL	1.00000		13800.00	
0540	455.0105 Asphaltic Material PG58-28	2,785.000 TON		.		.
0550	455.0120 Asphaltic Material PG64-28	1,178.000 TON		.		.
0560	455.0605 Tack Coat	11,747.000 GAL		.		.
0570	460.1103 HMA Pavement Type E-3	71,011.000 TON		.		.
0580	460.2000 Incentive Density HMA Pavement	45,570.000 DOL	1.00000		45570.00	

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0590	460.4000 HMA Cold Weather Paving	17,753.000 TON		.		.
0600	460.4110.S Reheating HMA Pavement Longitudinal Joints	192,208.000 LF		.		.
0610	465.0105 Asphaltic Surface	861.000 TON		.		.
0620	465.0110 Asphaltic Surface Patching	68.000 TON		.		.
0630	465.0120 Asphaltic Surface Driveways and Field Entrances	1,016.000 TON		.		.
0640	465.0125 Asphaltic Surface Temporary	1,475.000 TON		.		.
0650	465.0315 Asphaltic Flumes	391.000 SY		.		.
0660	465.0425 Asphaltic Shoulder Rumble Strips 2-Lane Rural	17,483.000 LF		.		.
0670	465.0475 Asphalt Center Line Rumble Strips 2-Lane Rural	9,030.000 LF		.		.
0680	501.1000.S Ice Hot Weather Concreting	2,260.000 LB		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0690	502.0100 Concrete Masonry Bridges	301.000 CY		.		.
0700	502.3200 Protective Surface Treatment	455.000 SY		.		.
0710	502.3210.S Pigmented Protective Surface Treatment	240.000 SY		.		.
0720	502.5005 Masonry Anchors Type L No. 5 Bars	52.000 EACH		.		.
0730	503.0146 Prestressed Girder Type I 45W-Inch	455.000 LF		.		.
0740	504.0100 Concrete Masonry Culverts	100.000 CY		.		.
0750	504.0900 Concrete Masonry Endwalls	29.000 CY		.		.
0760	505.0405 Bar Steel Reinforcement HS Bridges	5,480.000 LB		.		.
0770	505.0410 Bar Steel Reinforcement HS Culverts	15,710.000 LB		.		.
0780	505.0605 Bar Steel Reinforcement HS Coated Bridges	35,570.000 LB		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0790	506.2605 Bearing Pads Elastomeric Non-Laminated	10.000 EACH		.		.
0800	506.4000 Steel Diaphragms (structure) 001. B-53-291	8.000 EACH		.		.
0810	509.1500 Concrete Surface Repair	10.000 SF		.		.
0820	511.1200 Temporary Shoring (structure) 001. C-53-8	350.000 SF		.		.
0830	516.0500 Rubberized Membrane Waterproofing	51.000 SY		.		.
0840	520.0118 Culvert Pipe Class III 18-Inch	652.000 LF		.		.
0850	520.0121 Culvert Pipe Class III 21-Inch	278.000 LF		.		.
0860	520.0124 Culvert Pipe Class III 24-Inch	138.000 LF		.		.
0870	520.0136 Culvert Pipe Class Ill 36-Inch	91.000 LF		.		.
0880	520.0142 Culvert Pipe Class III 42-Inch	124.000 LF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0890	520.0148 Culvert Pipe Class III 48-Inch	108.000 LF		.		.
0900	520.0172 Culvert Pipe Class III 72-Inch	264.000 LF		.		.
0910	520.1018 Apron Endwalls for Culvert Pipe 18-Inch	34.000 EACH		.		.
0920	520.1021 Apron Endwalls for Culvert Pipe 21-Inch	4.000 EACH		.		.
0930	520.1024 Apron Endwalls for Culvert Pipe 24-Inch	6.000 EACH		.		.
0940	520.4012 Culvert Pipe Temporary 12-Inch	126.000 LF		.		.
0950	520.4018 Culvert Pipe Temporary 18-Inch	186.000 LF		.		.
0960	520.8000 Concrete Collars for Pipe	4.000 EACH		.		.
0970	521.0115 Culvert Pipe Corrugated Steel 15-Inch	40.000 LF		.		.
0980	521.0118 Culvert Pipe Corrugated Steel 18-Inch	260.000 LF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0990	521.0721 Pipe Arch Corrugated Steel 21x15-Inch	108.000 LF		.		.
1000	521.0728 Pipe Arch Corrugated Steel 28x20-Inch	437.000 LF		.		.
1010	521.0735 Pipe Arch Corrugated Steel 35x24-Inch	28.000 LF		.		.
1020	521.0742 Pipe Arch Corrugated Steel 42x29-Inch	40.000 LF		.		.
1030	521.1012 Apron Endwalls for Culvert Pipe Steel 12-Inch	2.000 EACH		.		.
1040	521.1015 Apron Endwalls for Culvert Pipe Steel 15-Inch	2.000 EACH		.		.
1050	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	12.000 EACH		.		.
1060	521.1221 Apron Endwalls for Pipe Arch Steel 21x15-Inch	6.000 EACH		.		.
1070	521.1228 Apron Endwalls for Pipe Arch Steel 28x20-Inch	10.000 EACH		.		.
1080	521.1235 Apron Endwalls for Pipe Arch Steel 35x24-Inch	2.000 EACH		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1090	521.1242 Apron Endwalls for Pipe Arch Steel 42x29-Inch	2.000 EACH		.		.
1100	522.0124 Culvert Pipe Reinforced Concrete Class III 24-Inch	458.000 LF		.		.
1110	522.0130 Culvert Pipe Reinforced Concrete Class III 30-Inch	88.000 LF		.		.
1120	522.0136 Culvert Pipe Reinforced Concrete Class III 36-Inch	153.000 LF		.		.
1130	522.0142 Culvert Pipe Reinforced Concrete Class III 42-Inch	128.000 LF		.		.
1140	522.0148 Culvert Pipe Reinforced Concrete Class III 48-Inch	85.000 LF		.		.
1150	522.0160 Culvert Pipe Reinforced Concrete Class III 60-Inch	104.000 LF		.		.
1160	522.0166 Culvert Pipe Reinforced Concrete Class III 66-Inch	196.000 LF		.		.
1170	522.0324 Culvert Pipe Reinforced Concrete Class IV 24-Inch	208.000 LF		.		.
1180	522.0336 Culvert Pipe Reinforced Concrete Class IV 36-Inch	96.000 LF		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1190	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	10.000 EACH		.		.
1200	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	1.000 EACH		.		.
1210	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	6.000 EACH		.		.
1220	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	24.000 EACH		.		.
1230	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	3.000 EACH		.		.
1240	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	6.000 EACH		.		.
1250	522.1042 Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	2.000 EACH		.		.
1260	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	2.000 EACH		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1270	522.1054 Apron Endwalls for Culvert Pipe Reinforced Concrete 54-Inch	2.000 EACH		.		.
1280	522.1060 Apron Endwalls for Culvert Pipe Reinforced Concrete 60-Inch	2.000 EACH		.		.
1290	522.1066 Apron Endwalls for Culvert Pipe Reinforced Concrete 66-Inch	4.000 EACH		.		.
1300	523.0119 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	80.000 LF		.		.
1310	523.0124 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 24x38-Inch	664.000 LF		.		.
1320	523.0129 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 29x45-Inch	422.000 LF		.		.
1330	523.0419 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	88.000 LF		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1340	523.0519 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	4.000 EACH		.		.
1350	523.0524 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	6.000 EACH		.		.
1360	523.0529 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	6.000 EACH		.		.
1370	550.1100 Piling Steel HP 10-Inch X 42 Lb	2,280.000 LF		.		.
1380	601.0405 Concrete Curb & Gutter 18-Inch Type A	151.000 LF		.		.
1390	601.0407 Concrete Curb & Gutter 18-Inch Type D	72.000 LF		.		.
1400	601.0409 Concrete Curb & Gutter 30-Inch Type A	158.000 LF		.		.
1410	601.0411 Concrete Curb & Gutter 30-Inch Type D	17,094.000 LF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1420	601.0413 Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type G	7,002.000 LF		.		.
1430	601.0415 Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	8,257.000 LF		.		.
1440	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	42.000 LF		.		.
1450	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	5,890.000 LF		.		.
1460	601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	1,822.000 LF		.		.
1470	601.0574 Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type G	472.000 LF		.		.
1480	601.0580 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	165.000 LF		.		.
1490	601.0582 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type T	315.000 LF		.		.
1500	602.0405 Concrete Sidewalk 4-Inch	9,930.000 SF		.		.
1510	602.0410 Concrete Sidewalk 5-Inch	71,295.000 SF		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1520	602.0515 Curb Ramp Detectable Warning Field Natural Patina	536.000 SF		.		.
1530	606.0100 Riprap Light	1,012.000 CY		.		.
1540	606.0200 Riprap Medium	334.000 CY		.		.
1550	606.0300 Riprap Heavy	415.000 CY		.		.
1560	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	2,615.000 LF		.		.
1570	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	202.000 LF		.		.
1580	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	793.000 LF		.		.
1590	608.0321 Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	29.000 LF		.		.
1600	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	2,518.000 LF		.		.
1610	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	245.000 LF		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1620	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	2,915.000 LF		.		.
1630	608.0354 Storm Sewer Pipe Reinforced Concrete Class III 54-Inch	154.000 LF		.		.
1640	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	507.000 LF		.		.
1650	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	388.000 LF		.		.
1660	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	177.000 LF		.		.
1670	608.0421 Storm Sewer Pipe Reinforced Concrete Class IV 21-Inch	7.000 LF		.		.
1680	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	351.000 LF		.		.
1690	610.0119 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	225.000 LF		.		.
1700	610.0134 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 34x53-Inch	253.000 LF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1710	610.0419 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	210.000 LF		.		.
1720	610.0429 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	618.000 LF		.		.
1730	610.0434 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	297.000 LF		.		.
1740	611.0530 Manhole Covers Type J	47.000 EACH		.		.
1750	611.0606 Inlet Covers Type B	3.000 EACH		.		.
1760	611.0624 Inlet Covers Type H	70.000 EACH		.		.
1770	611.0627 Inlet Covers Type HM	5.000 EACH		.		.
1780	611.0630 Inlet Covers Type HM-GJ	34.000 EACH		.		.
1790	611.0633 Inlet Covers Type HM-GJ-S	1.000 EACH		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1800	611.0636 Inlet Covers Type HM-S	2.000 EACH		.		.
1810	611.0642 Inlet Covers Type MS	16.000 EACH		.		.
1820	611.0645 Inlet Covers Type MS-A	2.000 EACH		.		.
1830	611.0654 Inlet Covers Type V	3.000 EACH		.		.
1840	611.2004 Manholes 4-FT Diameter	15.000 EACH		.		.
1850	611.2005 Manholes 5-FT Diameter	21.000 EACH		.		.
1860	611.2006 Manholes 6-FT Diameter	4.000 EACH		.		.
1870	611.2007 Manholes 7-FT Diameter	4.000 EACH		.		.
1880	611.2008 Manholes 8-FT Diameter	1.000 EACH		.		.
1890	611.2066 Manholes 6x6-FT	4.000 EACH		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1900	611.3220 Inlets 2x2-FT	5.000 EACH		.		.
1910	611.3230 Inlets 2x3-FT	111.000 EACH		.		.
1920	611.3901 Inlets Median 1 Grate	18.000 EACH		.		.
1930	611.8110 Adjusting Manhole Covers	1.000 EACH		.		.
1940	611.8115 Adjusting Inlet Covers	5.000 EACH		.		.
1950	611.8120.S Cover Plates Temporary	9.000 EACH		.		.
1960	611.9800.S Pipe Grates 001. 24-Inch	2.000 EACH		.		.
1970	611.9800.S Pipe Grates 002. 19 X 30-Inch	2.000 EACH		.		.
1980	612.0106 Pipe Underdrain 6-Inch	538.000 LF		.		.
1990	612.0206 Pipe Underdrain Unperforated 6-Inch	46.000 LF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2000	612.0212 Pipe Underdrain Unperforated 12-Inch	119.000 LF		.		.
2010	612.0406 Pipe Underdrain Wrapped 6-Inch	130.000 LF		.		.
2020	614.0115 Anchorages for Steel Plate Beam Guard Type 2	1.000 EACH		.		.
2030	614.0150 Anchor Assemblies for Steel Plate Beam Guard	4.000 EACH		.		.
2040	614.0305 Steel Plate Beam Guard Class A	100.000 LF		.		.
2050	614.0345 Steel Plate Beam Guard Short Radius	87.500 LF		.		.
2060	614.0360 Steel Plate Beam Guard Temporary	88.000 LF		.		.
2070	614.0380 Steel Plate Beam Guard Energy Absorbing Terminal Temporary	1.000 EACH		.		.
2080	614.0390 Steel Plate Beam Guard Short Radius Terminal	2.000 EACH		.		.
2090	614.0396 Guardrail Mow Strip Asphalt	288.000 SY		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2100	614.2300 MGS Guardrail 3	325.000 LF		.		.
2110	614.2500 MGS Thrie Beam Transition	158.000 LF		.		.
2120	614.2610 MGS Guardrail Terminal EAT	4.000 EACH		.		.
2130	616.0700.S Fence Safety	770.000 LF		.		.
2140	618.0100 Maintenance And Repair of Haul Roads (project) 001. 5966-10-71	1.000 EACH		.		.
2150	619.1000 Mobilization	1.000 EACH		.		.
2160	620.0100 Concrete Corrugated Median	2,162.000 SF		.		.
2170	620.0300 Concrete Median Sloped Nose	1,465.000 SF		.		.
2180	621.0100 Landmark Reference Monuments	60.000 EACH		.		.
2190	623.0200 Dust Control Surface Treatment	27,770.000 SY		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2200	624.0100 Water	3,580.000 MGAL		.		.
2210	625.0100 Topsoil	28,355.000 SY		.		.
2220	625.0500 Salvaged Topsoil	174,886.000 SY		.		.
2230	627.0200 Mulching	142,575.000 SY		.		.
2240	628.1504 Silt Fence	26,436.000 LF		.		.
2250	628.1520 Silt Fence Maintenance	26,436.000 LF		.		.
2260	628.1905 Mobilizations Erosion Control	38.000 EACH		.		.
2270	628.1910 Mobilizations Emergency Erosion Control	22.000 EACH		.		.
2280	628.2004 Erosion Mat Class I Type B	57,797.000 SY		.		.
2290	628.2006 Erosion Mat Urban Class I Type A	24,723.000 SY		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2300	628.2027 Erosion Mat Class II Type C	164.000 SY		.		.
2310	628.6510 Soil Stabilizer Type B	15.000 ACRE		.		.
2320	628.7005 Inlet Protection Type A	136.000 EACH		.		.
2330	628.7010 Inlet Protection Type B	18.000 EACH		.		.
2340	628.7015 Inlet Protection Type C	135.000 EACH		.		.
2350	628.7504 Temporary Ditch Checks	1,410.000 LF		.		.
2360	628.7555 Culvert Pipe Checks	243.000 EACH		.		.
2370	628.7560 Tracking Pads	22.000 EACH		.		.
2380	628.7570 Rock Bags	215.000 EACH		.		.
2390	629.0205 Fertilizer Type A	159.300 CWT		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2400	630.0120 Seeding Mixture No. 20	5,628.000 LB		.		.
2410	630.0140 Seeding Mixture No. 40	788.000 LB		.		.
2420	630.0200 Seeding Temporary	6,139.000 LB		.		.
2430	633.1100 Delineators Temporary	24.000 EACH		.		.
2440	633.5100 Markers Row	36.000 EACH		.		.
2450	633.5200 Markers Culvert End	73.000 EACH		.		.
2460	634.0410 Posts Wood 4x4-Inch X 10-FT	4.000 EACH		.		.
2470	634.0612 Posts Wood 4x6-Inch X 12-FT	5.000 EACH		.		.
2480	634.0614 Posts Wood 4x6-Inch X 14-FT	75.000 EACH		.		.
2490	634.0616 Posts Wood 4x6-Inch X 16-FT	81.000 EACH		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2500	634.0618 Posts Wood 4x6-Inch X 18-FT	38.000 EACH		.		.
2510	634.0620 Posts Wood 4x6-Inch X 20-FT	10.000 EACH		.		.
2520	634.0622 Posts Wood 4x6-Inch X 22-FT	6.000 EACH		.		.
2530	634.0811 Posts Tubular Steel 2x2-Inch X 11-FT	8.000 EACH		.		.
2540	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	1.000 EACH		.		.
2550	637.0620 Sign Flags Permanent Type II	8.000 EACH		.		.
2560	637.2210 Signs Type II Reflective H	1,909.600 SF		.		.
2570	637.2215 Signs Type II Reflective H Folding	120.660 SF		.		.
2580	637.2220 Signs Type II Reflective SH	6.750 SF		.		.
2590	637.2230 Signs Type II Reflective F	308.500 SF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2600	638.2102 Moving Signs Type II	75.000 EACH		.		.
2610	638.2602 Removing Signs Type II	106.000 EACH		.		.
2620	638.3000 Removing Small Sign Supports	102.000 EACH		.		.
2630	638.4000 Moving Small Sign Supports	32.000 EACH		.		.
2640	642.5401 Field Office Type D	1.000 EACH		.		.
2650	643.0100 Traffic Control (project) 001. 5966-00-72	1.000 EACH		.		.
2660	643.0100 Traffic Control (project) 002. 5966-00-73	1.000 EACH		.		.
2670	643.0100 Traffic Control (project) 003. 5966-10-70	1.000 EACH		.		.
2680	643.0100 Traffic Control (project) 004. 5966-10-71	1.000 EACH		.		.
2690	643.0300 Traffic Control Drums	128,200.000 DAY		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2700	643.0410 Traffic Control Barricades Type II	1,375.000 DAY		.		.
2710	643.0420 Traffic Control Barricades Type III	19,383.000 DAY		.		.
2720	643.0500 Traffic Control Flexible Tubular Marker Posts	548.000 EACH		.		.
2730	643.0600 Traffic Control Flexible Tubular Marker Bases	548.000 EACH		.		.
2740	643.0705 Traffic Control Warning Lights Type A	17,160.000 DAY		.		.
2750	643.0715 Traffic Control Warning Lights Type C	19,571.000 DAY		.		.
2760	643.0800 Traffic Control Arrow Boards	926.000 DAY		.		.
2770	643.0900 Traffic Control Signs	34,060.000 DAY		.		.
2780	643.0920 Traffic Control Covering Signs Type II	52.000 EACH		.		.
2790	643.1000 Traffic Control Signs Fixed Message	34.000 SF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2800	643.1050 Traffic Control Signs PCMS	761.000 DAY		.		.
2810	643.2000 Traffic Control Detour (project) 001. 5966-10-70	1.000 EACH		.		.
2820	643.2000 Traffic Control Detour (project) 002. 5966-10-71	1.000 EACH		.		.
2830	643.3000 Traffic Control Detour Signs	33,955.000 DAY		.		.
2840	645.0105 Geotextile Fabric Type C	240.000 SY		.		.
2850	645.0111 Geotextile Fabric Type DF Schedule A	664.000 SY		.		.
2860	645.0120 Geotextile Fabric Type HR	1,649.000 SY		.		.
2870	645.0130 Geotextile Fabric Type R	3,335.000 SY		.		.
2880	646.0106 Pavement Marking Epoxy 4-Inch	152,601.000 LF		.		.
2890	646.0126 Pavement Marking Epoxy 8-Inch	14,114.000 LF		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
2900	646.0600 Removing Pavement Markings	26,140.000 LF		.		.
2910	647.0156 Pavement Marking Arrows Epoxy Type 1	1.000 EACH		.		.
2920	647.0166 Pavement Marking Arrows Epoxy Type 2	144.000 EACH		.		.
2930	647.0206 Pavement Marking Arrows Bike Lane Epoxy	62.000 EACH		.		.
2940	647.0306 Pavement Marking Symbols Bike Lane Epoxy	62.000 EACH		.		.
2950	647.0356 Pavement Marking Words Epoxy	24.000 EACH		.		.
2960	647.0456 Pavement Marking Curb Epoxy	491.000 LF		.		.
2970	647.0526 Pavement Marking Yield Line Symbols Epoxy 18-Inch	35.000 EACH		.		.
2980	647.0566 Pavement Marking Stop Line Epoxy 18-Inch	804.000 LF		.		.
2990	647.0606 Pavement Marking Island Nose Epoxy	17.000 EACH		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3000	647.0726 Pavement Marking Diagonal Epoxy 12-Inch	3,603.000 LF		.		.
3010	647.0766 Pavement Marking Crosswalk Epoxy 6-Inch	2,824.000 LF		.		.
3020	647.0955 Removing Pavement Markings Arrows	1.000 EACH		.		.
3030	647.0965 Removing Pavement Markings Words	3.000 EACH		.		.
3040	648.0100 Locating No-Passing Zones	1.600 MI		.		.
3050	649.0100 Temporary Pavement Marking 4-Inch	80,883.000 LF		.		.
3060	649.0200 Temporary Pavement Marking Reflective Paint 4-Inch	14,000.000 LF		.		.
3070	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	14,413.000 LF		.		.
3080	649.0701 Temporary Pavement Marking 8-Inch	2,800.000 LF		.		.
3090	649.0801 Temporary Pavement Marking Removable Tape 8-Inch	560.000 LF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3100	649.1000 Temporary Pavement Marking Stop Line Removable Tape 12-Inch	24.000 LF		.		.
3110	649.1500 Temporary Pavement Marking Diagonal 12-Inch	200.000 LF		.		.
3120	649.1700 Temporary Pavement Marking Arrows	7.000 EACH		.		.
3130	649.1900 Temporary Pavement Marking Words	1.000 EACH		.		.
3140	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	20,657.000 LF		.		.
3150	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	4,961.000 LF		.		.
3160	652.0615 Conduit Special 3-Inch	438.000 LF		.		.
3170	652.0700.S Install Conduit into Existing Item	2.000 EACH		.		.
3180	652.0800 Conduit Loop Detector	5,292.000 LF		.		.
3190	653.0135 Pull Boxes Steel 24x36-Inch	23.000 EACH		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3200	653.0140 Pull Boxes Steel 24x42-Inch	90.000 EACH		.		.
3210	653.0900 Adjusting Pull Boxes	2.000 EACH		.		.
3220	653.0905 Removing Pull Boxes	31.000 EACH		.		.
3230	654.0101 Concrete Bases Type 1	22.000 EACH		.		.
3240	654.0102 Concrete Bases Type 2	8.000 EACH		.		.
3250	654.0105 Concrete Bases Type 5	16.000 EACH		.		.
3260	654.0113 Concrete Bases Type 13	4.000 EACH		.		.
3270	654.0217 Concrete Control Cabinet Bases Type 9 Special	3.000 EACH		.		.
3280	654.0230 Concrete Control Cabinet Bases Type L30	1.000 EACH		.		.
3290	655.0230 Cable Traffic Signal 5-14 AWG	2,644.000 LF		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3300	655.0240 Cable Traffic Signal 7-14 AWG	3,680.000 LF		.		.
3310	655.0250 Cable Traffic Signal 9-14 AWG	1,217.000 LF		.		.
3320	655.0260 Cable Traffic Signal 12-14 AWG	3,703.000 LF		.		.
3330	655.0270 Cable Traffic Signal 15-14 AWG	1,713.000 LF		.		.
3340	655.0280 Cable Traffic Signal 19-14 AWG	150.000 LF		.		.
3350	655.0305 Cable Type UF 2-12 AWG Grounded	1,336.000 LF		.		.
3360	655.0320 Cable Type UF 2-10 AWG Grounded	705.000 LF		.		.
3370	655.0515 Electrical Wire Traffic Signals 10 AWG	7,264.000 LF		.		.
3380	655.0610 Electrical Wire Lighting 12 AWG	20,619.000 LF		.		.
3390	655.0615 Electrical Wire Lighting 10 AWG	960.000 LF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3400	655.0620 Electrical Wire Lighting 8 AWG	2,868.000 LF		.		.
3410	655.0625 Electrical Wire Lighting 6 AWG	144.000 LF		.		.
3420	655.0635 Electrical Wire Lighting 2 AWG	43,806.000 LF		.		.
3430	655.0700 Loop Detector Lead In Cable	18,859.000 LF		.		.
3440	655.0800 Loop Detector Wire	15,538.000 LF		.		.
3450	656.0200 Electrical Service Meter Breaker Pedestal (location) 002. CTH G & Townline Road	LUMP	LUMP			.
3460	656.0200 Electrical Service Meter Breaker Pedestal (location) 003. CTH G & CTH BT	LUMP	LUMP			.
3470	656.0200 Electrical Service Meter Breaker Pedestal (location) 004. 46+10'G', 40' LT	LUMP	LUMP			.
3480	656.0500 Electrical Service Breaker Disconnect Box (location) 001. 202+04 'AW', 75' LT	LUMP	LUMP			.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3490	657.0100 Pedestal Bases	22.000 EACH		.		.
3500	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	24.000 EACH		.		.
3510	657.0310 Poles Type 3	4.000 EACH		.		.
3520	657.0315 Poles Type 4	4.000 EACH		.		.
3530	657.0322 Poles Type 5-Aluminum	16.000 EACH		.		.
3540	657.0420 Traffic Signal Standards Aluminum 13-FT	4.000 EACH		.		.
3550	657.0425 Traffic Signal Standards Aluminum 15-FT	13.000 EACH		.		.
3560	657.0430 Traffic Signal Standards Aluminum 10-FT	5.000 EACH		.		.
3570	657.0595 Trombone Arms 25-FT	1.000 EACH		.		.
3580	657.0609 Luminaire Arms Single Member 4-Inch Clamp 6-FT	8.000 EACH		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3590	657.0610 Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	16.000 EACH		.		.
3600	657.0614 Luminaire Arms Single Member 4-Inch Clamp 8-FT	8.000 EACH		.		.
3610	657.1355 Install Poles Type 12	4.000 EACH		.		.
3620	657.1540 Install Monotube Arms 40-FT	2.000 EACH		.		.
3630	657.1545 Install Monotube Arms 45-FT	2.000 EACH		.		.
3640	658.0110 Traffic Signal Face 3-12 Inch Vertical	52.000 EACH		.		.
3650	658.0115 Traffic Signal Face 4-12 Inch Vertical	16.000 EACH		.		.
3660	658.0120 Traffic Signal Face 5-12 Inch Vertical	3.000 EACH		.		.
3670	658.0165 Traffic Signal Face 5-12 Inch Horizontal	1.000 EACH		.		.
3680	658.0215 Backplates Signal Face 3 Section 12-Inch	52.000 EACH		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3690	658.0220 Backplates Signal Face 4 Section 12-Inch	16.000 EACH		.		.
3700	658.0225 Backplates Signal Face 5 Section 12-Inch	4.000 EACH		.		.
3710	658.0416 Pedestrian Signal Face 16-Inch	14.000 EACH		.		.
3720	658.0500 Pedestrian Push Buttons	16.000 EACH		.		.
3730	658.0600 Led Modules 12-Inch Red Ball	40.000 EACH		.		.
3740	658.0605 Led Modules 12-Inch Yellow Ball	40.000 EACH		.		.
3750	658.0610 Led Modules 12-Inch Green Ball	40.000 EACH		.		.
3760	658.0615 Led Modules 12-Inch Red Arrow	32.000 EACH		.		.
3770	658.0620 Led Modules 12-Inch Yellow Arrow	65.000 EACH		.		.
3780	658.0625 Led Modules 12-Inch Green Arrow	23.000 EACH		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3790	658.0635 Led Modules Pedestrian Countdown Timer 16-Inch	14.000 EACH		.		.
3800	658.5069 Signal Mounting Hardware (location) 001. STH 11 & CTH G	LUMP	LUMP			.
3810	658.5069 Signal Mounting Hardware (location) 002. CTH G & Huebbe Pkwy	LUMP	LUMP			.
3820	658.5069 Signal Mounting Hardware (location) 003. USH 51 & Cranston Road	LUMP	LUMP			.
3830	658.5069 Signal Mounting Hardware (location) 004. CTH G & CTH BT	LUMP	LUMP			.
3840	658.5069 Signal Mounting Hardware (location) 005. CTH G & Townline Road	LUMP	LUMP			.
3850	659.0802 Plaques Sequence Identification	4.000 EACH		.		.
3860	659.1115 Luminaires Utility LED A	20.000 EACH		.		.
3870	659.1120 Luminaires Utility LED B	4.000 EACH		.		.
3880	659.1125 Luminaires Utility LED C	12.000 EACH		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3890	659.2130 Lighting Control Cabinets 120/240 30-Inch	1.000 EACH		.		.
3900	661.0200 Temporary Traffic Signals for Intersections (location) 001. STH 11 & CTH G	LUMP	LUMP			.
3910	670.0100 Field System Integrator	LUMP	LUMP			.
3920	670.0200 ITS Documentation	LUMP	LUMP			.
3930	673.0225.S Install Pole Mounted Cabinet	1.000 EACH		.		.
3940	675.0300 Install Mounted Controller Microwave Detector Assembly	1.000 EACH		.		.
3950	677.0200 Install Camera Assembly	1.000 EACH		.		.
3960	677.0300.S Install Video Encoder	1.000 EACH		.		.
3970	678.0500 Communication System Testing	LUMP	LUMP			.
3980	690.0150 Sawing Asphalt	2,323.000 LF		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
3990	690.0250 Sawing Concrete	6,987.000 LF		.		.
4000	715.0415 Incentive Strength Concrete Pavement	2,500.000 DOL	1.00000		2500.00	
4010	715.0502 Incentive Strength Concrete Structures	2,410.000 DOL	1.00000		2410.00	
4020	SPV.0060 Special 052. Baseline CPM Progress Schedule	1.000 EACH		.		.
4030	SPV.0060 Special 053. CPM Progress Schedule Updates And Accepted Revisions	7.000 EACH		.		.
4040	SPV.0060 Special 125. Inlet Cover Flat Temporary	4.000 EACH		.		.
4050	SPV.0060 Special 126. Apron Endwalls Twin Culvert Pipe Steel 24-Inch	2.000 EACH		.		.
4060	SPV.0060 Special 127. Apron Endwalls Twin Culvert Pipe Steel 36-Inch	2.000 EACH		.		.
4070	SPV.0060 Special 128. Apron Endwalls Twin Culvert Pipe Steel 42-Inch	2.000 EACH		.		.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
4080	SPV.0060 Special 129. Apron Endwalls Twin Culvert Pipe Steel 48-Inch	2.000 EACH		.		.
4090	SPV.0060 Special 130. Apron Endwalls Twin Culvert Pipe Steel 72-Inch	4.000 EACH		.		.
4100	SPV.0060 Special 131. Temporary Drainage Riser	8.000 EACH		.		.
4110	SPV.0060 Special 225. Temporary Curb Ramp	2.000 EACH		.		.
4120	SPV.0060 Special 375. Decorative Lighting Assembly Led A	83.000 EACH		.		.
4130	SPV.0060 Special 376. Decorative Lighting Assembly Concrete Base	83.000 EACH		.		.
4140	SPV.0060 Special 377. Lighting Control Cabinet	1.000 EACH		.		.
4150	SPV.0060 Special 378. Lighting Control Cabinet Concrete Base	1.000 EACH		.		.
4160	SPV.0060 Special 379. Relocate Street Light	1.000 EACH		.		.
4170	SPV.0060 Special 401. Install Cellular Modem	2.000 EACH		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
4180	SPV.0060 Special 402. Install Solar Power Assembly	1.000 EACH		.		.
4190	SPV.0060 Special 403. 50-Foot Wood Pole	1.000 EACH		.		.
4200	SPV.0060 Special 404. 65-Foot Wood Pole	1.000 EACH		.		.
4210	SPV.0060 Special 475. Concrete Bases Type 10, Contractor Supplied Anchor Bolts & Anchor Rod Templ	2.000 EACH		.		.
4220	SPV.0060 Special 476. Concrete Bases Type 13, Contractor Supplied Anchor Bolts & Anchor Rod Templ	6.000 EACH		.		.
4230	SPV.0060 Special 477. Poles Type 9	2.000 EACH		.		.
4240	SPV.0060 Special 478. Poles Type 12	2.000 EACH		.		.
4250	SPV.0060 Special 479. Poles Type 13	4.000 EACH		.		.
4260	SPV.0060 Special 480. Monotube Arms 20-FT	2.000 EACH		.		.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
4270	SPV.0060 Special 481. Monotube Arms 35-FT	2.000 EACH		.		.
4280	SPV.0060 Special 482. Monotube Arms 50-FT	4.000 EACH		.		.
4290	SPV.0060 Special 483. Traffic Signal Controller And Cabinet Fully Actuated 8-Phase	2.000 EACH		.		.
4300	SPV.0060 Special 484. Luminaire Arms Steel 15-Ft	4.000 EACH		.		.
4310	SPV.0090 Special 100. Storm Sewer Pipe PVC 8-Inch	187.000 LF		.		.
4320	SPV.0090 Special 225. Pedestrian Safety Fence	2,401.000 LF		.		.
4330	SPV.0090 Special 226. Removing Longitudinal Pavement Markings Water Blasting	1,050.000 LF		.		.
4340	SPV.0105 Special 054. Concrete Pavement Joint Layout	LUMP	LUMP			.
4350	SPV.0105 Special 055. Survey Project 5966-00-72	LUMP	LUMP			.
4360	SPV.0105 Special 056. Survey Project 5966-00-73	LUMP	LUMP			.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
4370	SPV.0105 Special 057. Survey Project 5966-10-70	LUMP	LUMP			.
4380	SPV.0105 Special 058. Survey Project 5966-10-71	LUMP	LUMP			.
4390	SPV.0105 Special 100. Connect To Existing Drain Tile With Cleanout	LUMP	LUMP			.
4400	SPV.0105 Special 450. Remove Traffic Signals STH 11 & CTH G	LUMP	LUMP			.
4410	SPV.0105 Special 451. Remove Traffic Signals USH 51 & Cranston Road	LUMP	LUMP			.
4420	SPV.0105 Special 452. Remove Traffic Signals, CTH G & CTH BT	LUMP	LUMP			.
4430	SPV.0105 Special 454. Temporary Non-Intrusive Vehicle Detection System, STH 11 & CTH G	LUMP	LUMP			.
4440	SPV.0105 Special 455. Remove Loop Detector Wire And Lead-In Cable, STH 11 & CTH G	LUMP	LUMP			.
4450	SPV.0105 Special 456. Remove Loop Detector Wire And Lead-In Cable, CTH G & Huebbe Pkwy	LUMP	LUMP			.

CONTRACT: 20150414011
PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71
FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
4460	SPV.0105 Special 457. Modify Video Detection System CTH G & Huebbe Pkwy	LUMP	LUMP			.
4470	SPV.0105 Special 458. Electrical System Grounding CTH G & Huebbe Pkwy	LUMP	LUMP			.
4480	SPV.0105 Special 459. Salvage & Reinstall Traffic Signal Equipment CTH G & Huebbe Pkwy	LUMP	LUMP			.
4490	SPV.0105 Special 460. Salvage & Reinstall Traffic Signal Equipment USH 51 & Cranston Road	LUMP	LUMP			.
4500	SPV.0105 Special 461. Modify Traffic Signal Cabinet CTH G & Huebbe Pkwy	LUMP	LUMP			.
4510	SPV.0105 Special 462. Transport & Install State Furn. Non Intrusive Detection System 51 & Cranston	LUMP	LUMP			.
4520	SPV.0105 Special 465. Remove Loop Detector Wire And Lead-In Cable, CTH G & CTH BT	LUMP	LUMP			.
4530	SPV.0105 Special 466. Interim Traffic Signal Operation, CTH G & CTH BT	LUMP	LUMP			.

CONTRACT: 20150414011

PROJECT(S): 5966-00-72, 5966-00-73, 5966-10-70, 5966-10-71

FEDERAL ID(S): N/A, WISC 2015179, N/A, N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
4540	SPV.0165 Special 001. Concrete Corrugated Median Flush	3,780.000 SF		.		.
4550	SPV.0165 Special 051. Concrete Sidewalk 10-Inch	305.000 SF		.		.
4560	SPV.0195 Special 051. QMP Base Aggregate Dense 1 1/4-Inch Compaction	133,340.000 TON		.		.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

PLEASE ATTACH SCHEDULE OF ITEMS HERE